DOCUMENT RESUME

ED 477 213 EC 309 626

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TITLE	The Latina Voice in Special Education: Classroom Behaviors, School Attitudes, and Gender Identity of Latina Students in Special Education. Final Report.
INSTITUTION	San Francisco Univ., CA.
SPONS AGENCY	Special Education Programs (ED/OSERS), Washington, DC.
PUB DATE	2002-05-00
NOTE	117p.
CONTRACT	H324B010037
PUB TYPE	Reports - Research (143)
EDRS PRICE	EDRS Price MF01/PC05 Plus Postage.
DESCRIPTORS	*Educational Attitudes; Females; *Gender Issues; *Hispanic American Students; *Learning Disabilities; Mild Disabilities; School Attitudes; School Support; Secondary Education; Sex Differences; Sex Role; *Single Sex Classes; Special Education; *Student Attitudes

ABSTRACT

This final report provides findings of a qualitative study of characteristics of Latina high school students with learning disabilities in the context of use of single sex environments to encourage school continuance for this population. Specifically, the study examined whether there are measurable differences in classroom behaviors, school attitudes, and gender identity of 15 special education students (of whom 9 were Latina) with mild to moderate learning disabilities who attended either single-gender or mixed-gender special education classes in a California high school. The study utilized classroom observations, focus group interviews, and individual interviews with female students, teachers, and administrators. Results provided some evidence that these Latina students attending single-gender special education classrooms were advantaged in the areas of classroom behavior, such as participation in class, school attitude, including school attendance, and environmental factors, such as comfort level experienced in the classroom, compared to their counterparts in the coed classroom. Gender identity was a complex issue for both groups. Latina students in the single-gender environment benefited in the areas of classroom behavior, attitude toward school, and school support compared to Latina students in the coed program. (Contains approximately 110 references.) (Author/DB)

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OSEP Project Final Report

Grant Number: H324B010037

Project Title: ***The Latina Voice in Special Education: Classroom Behaviors, School Attitudes, and Gender Identity of Latina Students in Special Education***

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University of San Francisco

May 2002

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CHAPTER ONE

Statement of the Problem

Are there differences in the classroom behaviors, school attitudes, and gender identity of female special education students in single-gender secondary level classes compared to female students in coeducational special education classrooms? Are there specific benefits for Latina students in single-gender special education classrooms?

Using social learning theory (Bandura, 1986), this study connected modeling and observational learning to single-gender classrooms in special education. Social learning theory, or social cognitive theory, emphasizes the importance of observing and modeling the behaviors, attitudes, and emotional reactions of others. Teachers, parents, and peers serve as powerful models for children. Observing a successful model can lead observers to the belief that if the model can learn, they can learn as well (Schunk, 1987). This research posited that single-gender classrooms provide positive same-sex peer modeling for female students. In this study, special education secondary level classrooms provided the environment for the investigation of females in single-gender and mixed-gender settings, particularly for Latina students.

Data collected from female special education students, special education teachers, and program administrators was obtained from in-depth focus group interviews, individual interviews, and classroom observations. The data were transcribed and content analyzed to gather information on female students in single-gender and mixed-gender special education programs. Transcription of the interviews allowed for the exploration of generalized themes that addressed the research questions. Four questions were investigated. First, are there differences in classroom behaviors, such as class

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participation and completed homework assignments, of female students in single-gender special education classrooms and female students in mixed-gender special education classrooms? Second, do school attitudes, including statements indicating positive or negative feelings toward school, of female students in single-gender special education classrooms differ from their counterparts in coeducational programs? Third, are there differences in the gender identity, as measured by self statements about gender and implied statements related to self-esteem, of female students in single-gender special education classes compared to female students in mixed-gender special education classes? Finally, this study also answered the question: What are the specific benefits for Latina students in single-gender secondary level special education classrooms?

Purpose of the Study

The purpose of this research was to determine whether there were measurable differences in classroom behaviors, school attitudes, and gender identity of girls who attend single-gender and mixed-gender special day classes (SDC). Special day classrooms (SDC) are defined as special education classrooms in which students with mild to moderate disabilities spend 50% or more of the day. Because of the high percentage of ethnic minorities in special education in California, particularly students of Latin American origin, this study examined the impact of single-gender special day classrooms for Latina students.

Research in special education seldom focuses on gender issues. Studies in general education settings suggest that female students in coeducational classrooms tend to receive less attention and have fewer opportunities for participation than male students (AAUW, 1998a; Grossman, 1998; Riordan, 1990, Sadker & Sadker, 1995). Girls in

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single-gender classrooms show greater gains, both academically and affectively, than their counterparts in coeducational settings (Monaco & Gaier, 1992; Posnick-Goodwin, 1997; Riordan, 1990). Nationwide research examining the outcomes of ethnic group differences, in the context of single-gender settings compared to coeducational schools, yielded statistically significant results for Latina and African-American girls. Latina and African-American girls attending single-gender schools scored higher on measures of leadership, academic achievement, and environmental control than their counterparts in coeducational schools (Riordan, 1994).

A recent trend in public education is the re-establishment of single-gender programs for males and females in general education settings (Datnow, Hubbard, & Conchas, 2001; Hubbard & Datnow, 2000; Streitmatter, 1997; 1999). It is timely to investigate whether similar academic and affective benefits can be achieved by females, particularly Latina students, enrolled in single-gender special education programs.

Definition of Key Terms

The following are definitions of terms and concepts as they were used in this proposed research:

classroom behaviors- In this study, classroom behaviors were measured by observations of classroom activities, such as answering teacher initiated questions, hand-raising during discussions, asking questions, and completion of in-class and homework assignments as measured by a rubric designed by the researcher (See Appendix A).

coeducational classrooms- In this study, coeducational classrooms referred to public secondary level special education classes that serve both boys and girls.

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equity- Equity was defined as quality educational programs and equal opportunities for all students regardless of gender, race, and ethnicity. In this study, the term referred specifically to gender equity.

gender identity- In this study, gender identity was measured by self statements about student perceptions of gender, gender differences, and implied statements related to self-esteem as measured by data collected from focus group and individual interviews with students (See Appendix B).

Latinos- Students of Latin American origin; the word Latino referred to "individuals from more than 20 different nations, with countless dialects, and different skin colors" (Riley, 2000, p.1). In this study, Latino specifically referred to students of Latin American origin, including Central and South American countries.

Latinas- Female secondary level students of Latin American origin.

modeling- Actions performed by teachers, peers, parents, and others that demonstrate how to perform a task. Modeling in the context of this research also included behaviors and attitudes modeled by others.

mixed-gender classrooms- In this study, mixed-gender classrooms referred to public secondary level special education classes that serve both boys and girls.

school attitudes- In this study, school attitudes were measured by general affective behaviors and statements indicating positive or negative feelings toward school reported in focus group and individual interviews.

self-esteem- For the purposes of this research, self-esteem represented an attitude a student takes toward herself as measured by self report statements, focus group, and

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individual interview data indicating positive or negative self-assessment and views of self.

single-gender schools- Public and/or private schools comprised of only male or only female students. In this study, a distinction was made between single-gender schools and single-gender programs within coeducational schools.

single-gender classrooms- Classes within a coeducational secondary level school setting that are comprised of only one gender.

special day classroom- Special education placements in which students spend 50% or more of the school day in the same classroom.

students with learning disabilities- Students who are identified as average to above average on intelligence tests and below average on at least two or more tests measuring actual achievement (Ysseldyke, Algozzine, & Thurlow, 2000).

Title IX- Referred to the Education Amendments Act of 1972 which protects students from discrimination on the basis of gender in educational programs or activities that receive federal financial assistance.

Background and Need

There is a growing body of literature documenting the benefits of single-sex schooling in the general education setting and a recent interest in single-sex education as a means of addressing the needs of at-risk students (Datnow, Hubbard & Woody, 2001; Datnow, Hubbard, & Conchas, 2001; Datnow & Hubbard, 2000; Hubbard & Datnow, 2000; Streitmatter, 1997; Streitmatter, 1999). The issue of single-gender education, however, has not been examined in special education. Research in special education rarely focuses on gender issues. The lack of research and programs focusing on the needs

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of girls in special education may place them at risk for failure and dropping out of school (AAUW, 1998a).

Since the passage of PL 94-142, the Education for all Handicapped Children Act of 1975, students have been identified in greater and greater numbers for placement in special education. Of those placed in special education, boys have been identified as emotionally disturbed (ED) four times as often as girls. Boys are six times more likely than girls to be diagnosed with learning disabilities (LD) (AAUW, 1992; Epstein, Cullinan, & Bursuck, 1985). The disproportionate number of boys identified as ED and LD has resulted in special education classes, specifically special day classes (SDC), in which boys outnumber girls by startling percentages. In special education classrooms where boys consistently outnumber girls, girls take fewer risks and perform less proficiently than boys (Grossman, 1998). Textbooks and curricula reinforce sex-role stereotypes, and co-educational gender-biased classrooms reduce the confidence levels of girls (Grossman, 1998; Rogers & Gilligan, 1998).

There is a body of research which suggests that single-sex school programs create environments that empower students both academically and affectively. Both boys and girls have been shown to benefit from the single-sex school environment (Steedman, 1985). These benefits for students include increased performance in mathematics, science, foreign language, and English, as well as affective measures of self-esteem and locus of control (AAUWb, 1998; Riordan, 1994; Riordan, 1990). Comparative studies indicate that girls in single-gender schools demonstrate greater gains than their peers in coeducational settings both academically and on measures of self-esteem (Monaco & Gaier, 1992; Posnick-Goodwin, 1997; Riordan, 1990; Riordan, 1994).

Streitmatter (1999), in a qualitative study of single-sex programs nationwide, happened to include a classroom of girls identified for special education. The class was an integrated math and algebra course team taught by one general educator and one special educator. The results of her research provide some evidence that the girls benefited in the areas of self-confidence and risk-taking. More importantly, interviews with the girls yielded compelling insights into their changed perceptions as learners. There was consensus that without the presence of boys in the classroom, girls were more focused on content and their learning experiences were heightened (Streitmatter, 1994; 1999).

In reviewing the historical picture of women's educational experiences in the United States, it appears that the expectations for girls in school have been different than the expectations for boys. Historically, girls have been raised to assume specific and limited roles in society such as secretarial, nursing or teaching school. The quality of their education matched the function of those roles (Streitmatter, 1999). With the advent of Title IX, and the enforcement of equal access legislation, the options for girls have improved dramatically. Opportunities for girls in school have changed, however, the European male centered culture in schools remains intact.

In a three-year study of elementary and secondary classrooms, Sadker and Sadker (1991) reported that girls enter school ahead of boys on measures of academic achievement and psychological well being. By the time they reach high school and upon graduation, girls trail boys academically. In addition to the loss of academic achievement, girls suffer from a variety of psychological problems ranging from eating disorders to depression. In their book, *Failing at Fairness* (1995), Sadker and Sadker argue that girls

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experience a progressive downward spiral on academic, psychological, and economic measures after elementary school. They make the following observations in support of this view:

- In high school, girls score lower than boys on the SAT and ACT tests. The greatest gender gaps are in the areas of science and math.
- Boys are more likely to be awarded state and national scholarships.
- Women score lower on all sections of the Graduate Record Exam, which is necessary to enter many graduate programs.
- From elementary school through higher education, female students receive less active instruction, both in quality and quantity of teacher time and attention.
- Eating disorders among girls in middle schools, secondary schools, and in college are rampant and increasing.
- One in ten teenage girls becomes pregnant each year. Unlike boys, when girls drop out, they usually stay out.
- Economic penalties follow women after graduation. Careers that have a high percentage of female workers, such as teaching and nursing, are poorly paid. When women work in the same jobs as men, they earn less money. Most of America's poor live in households that are headed by women.

(Sadker & Sadker, 1995, pp. 13-14)

Research consistently demonstrates that female students in coeducational classrooms receive less opportunity to participate and less feedback from teachers than their male counterparts (Grossman, 1998; Riordan, 1990; Sadker & Sadker, 1995). Males continue

to score better than females on most standardized tests (U.S. DOE, 1991), despite the fact that schools are often characterized as feminized. In fact, male students receive more positive and negative attention than females from teachers in the classroom (AAUW, 1992; Orenstein, 1994). These conditions create an atmosphere which places girls at risk for negligence, underachievement, and ultimately dropping out.

Equity research has just begun to explore the diversity of girls, as opposed to the presentation of girls as a uniform group. Since 1992, research on girls has shifted from an assumption of homogeneity to an in-depth focus of differences among girls or "intra-gender differences" (AAUW, 1998a). An exploration of the population of girls by ethnicity and socioeconomic status may provide a more accurate picture of the complex educational issues that must be addressed. Some of the inconsistencies in the research on girls are amplified in the work of Gilligan (1982). Her findings indicate that adolescent girls experience a severe loss of self-esteem during the teenage years leading to a loss of intellectual and social confidence. However, an AAUW study conducted in the 1990s found that White and Latina girls experienced a decline in self-esteem during adolescence, while African-American girls did not. Overall, the self-esteem of Latinas declined the most severely; only 38% of Latina high school students agreed with the statement "I feel good about myself when I am with my family" (AAUW, 1990). Recent work is in progress to explore the differences among girls in public-school settings within the context of ethnicity and socioeconomic background (Rogers & Gilligan, 1998).

Dropout rates appear to be a key indicator of success for schools, however data on dropouts are not always reliable. There is discrepancy between the definition of a "school dropout" and variance in the measures used to calculate dropout rates (AAUW, 1998a;

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Fine, 1990). Of all the variables, socioeconomic status appears to be the strongest overall predictor for determining student dropout rates. The correlation between dropout rate and socioeconomic status, however, does not account for the differences in the patterns of boys and girls. White females have the lowest dropout rate of any gender or racial group (Rumberger, 1995). In contrast, Latina students consistently leave school prior to graduation at a higher rate than any other ethnic group. In 1995, 30% of Latina students age 16 to 22 dropped out of school (Ginorio & Huston, 2001; U. S. DOE, 1997). Recently, the U.S. Department of Education (2000) reported that male and female Latino students are twice as likely as African-Americans and three times as likely as White students to leave school (See Table 1).

Table 1: General Education Dropout Rates Across Different Groups

Group	Dropout Rate %	# of Dropouts (Thousands)	% of Dropouts Within Group
Total	11.2	3,829	100.0
Gender			
Male	11.9	2,032	53.1
Female	10.5	1,797	46.9
Ethnicity			
White	7.3	1,636	42.7
Black	12.6	621	16.2
Latino	28.6	1,445	37.7

Source: U.S. Department of Education 2000

Despite the fact that dropout rates for White students and African American students continue to decline, dropout rates for Latino students are on the rise. Over a 28-

year period, approximately three out of every ten Latino students, ages 16 to 24 years old, were reported to be out of school, and lacking a high school diploma (U.S. DOE, 2000). Linguistic complexities within the Latino population are thought to contribute to the high dropout rate; as many as 20 dialects within the Spanish language are spoken in the Americas (Wright-Harp & Munoz, 2000). Furthermore, when Latino students drop out of school, they tend to stay out (AAUW, 1998a; Romo, 1998; U.S. DOE, 2000).

Latina students have the highest dropout rate for any group of girls; approximately 1 out of every 5 Latina students leave school before the age of 17 (Schnaiberg, 1998). In some urban and rural areas, 56% of Latina students leave school before graduation (U.S. Bureau of the Census, 1999). The teen pregnancy and birth rates of Latinas have not followed the decline of African-American and White rates. Pregnancy prevention programs are not geared to meet the cultural and linguistic needs of Latina teenagers (AAUW, 1998a; Ginorio & Huston, 2001; Portner, 1998).

By the year 2030, the Latino population is expected to reach 59 million and will become the largest ethnic minority group in the United States. Much of this reported growth has occurred in California. The school age Latino population, in particular, is growing at a dramatic and unprecedented rate. California ranks first in its resident population of Latinos, Asians and Pacific Islanders, and second for African Americans and Native Americans. California's Latino population is currently 39% (U.S. Census Bureau, 2000). The Latino/a community faces unique struggles and risks in relationship to school. Factors such as incessant absences from class, frequent residential changes, and lack of language fluency contribute to this phenomenon (Ginorio & Huston, 2001; Portillo & Segura, 1996).

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To date, over 600,000 students in California receive special education services. Between 1993 and 2000, the number of special education students in California increased by 41% (California DOE, 1999). Statewide, the ethnic enrollment of special education students is growing. Currently, 63% of California's special education students are ethnic minorities (California DOE, 2000). Recent projections indicate that approximately 26% of students with disabilities will leave high school before graduation (U.S. DOE, 1997). With the exception of Asian Americans, minority students in special education leave school with greater frequency than White students. Latino students in special education are considered to be at the highest risk for dropping out (Pitsch, 1991). The percentage of dropouts in special education by gender is 50.4% female and 49.6% male (McMillan, 1997), but this is deceptive because of the disproportionate number of boys in special education. It is evident that efforts to retain female, particularly Latina students, in special education have not been successful. Efforts to improve the services provided to students of culturally and linguistically diverse backgrounds have been made (Baca, Fradd & Collier, 1990; Guillory, 2000; Romo & Falbo, 1996), however, solutions must continue to be explored to address this growing problem. Single-gender environments may provide one viable option to encourage school continuance for these students.

Research Questions

The study investigated the impact of single-gender special day classrooms for female students at the high school level. Research questions included:

Research Question 1: How does classroom behavior differ for girls in secondary level single-gender special day classrooms and coeducational special day classrooms?

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Classroom behaviors were measured by observations of classroom activities, such as answering teacher initiated questions, hand-raising during discussions, asking questions, and completion of in-class and homework assignments.

The researcher devised a rubric to measure the number of times students demonstrated behaviors such as hand-raising, answering and asking questions, and participating in class discussions that was used during designated classroom observations. A trained graduate assistant observed on two separate occasions using the rubric for inter-rater reliability.

Research Question 2: How does school attitude differ for girls in secondary level single-gender special day classrooms and coeducational special day classrooms?

School attitudes were measured by general affective behaviors and statements indicating positive or negative feelings toward school reported in focus group and individual interviews. Specific questions from the interview protocols were designed to address this question. The following questions are examples of those that were used to measure school attitude:

How are you doing in school as compared with last year? Do you feel that the single-gender aspect has affected your experience? (Consider participation, attendance, academic achievement, etc.) Has your attitude toward school changed since attending a single-gender special education program?

The questions were modified for students in the mixed-gender and single-gender environments.

Research Question 3: How does gender identity differ for girls in single-gender special day classrooms and coeducational special day classrooms?

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Gender identity was measured by self statements about student perceptions of gender, gender differences, and implied statements related to self-esteem. Questions from the interview protocols were used to answer this question. The following questions are examples of those that were used to measure gender identity:

How does it feel to be a girl in special education classes? What's it like to be a girl today? What's the best/worst thing about being a girl? What messages about gender do your parents give you? Teachers? Peers? Media? How does being a girl affect your experiences of school?

Research Question 4: What are the specific benefits for Latina students of single-gender special day classes?

Benefits of single-gender special education classrooms were measured by general affective behaviors and statements indicating positive or negative feelings toward school reported in focus group and individual interviews. Specific questions from the interview protocols were designed to address this question. The following questions are examples of those that were used to measure benefits for Latina students:

How does it feel to be a Latina in single-gender special education classes? What's it like to be a Latina today? Do you feel that the single- gender aspect has affected your experience? Has your attitude toward school changed since attending a single-gender special education program?

Theoretical Rationale

The underlying rationale for this research was Bandura's (1977) social learning theory. Social learning theory, or social cognitive theory, emphasizes the importance of observing and modeling behaviors, attitudes, and emotional reactions of others. Bandura

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states: "Learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do. Fortunately, most human behavior is learned observationally through modeling: from observing others one forms an idea of how new behaviors are performed, on later occasions this coded information serves as a guide for action" (Bandura, 1997, p. 22). He contends that people learn through observation by imitating others. The behaviors, interests, and mannerisms one acquires through modeling depend on the model (Bandura, 1986; Rosenthal & Zimmerman, 1978). Teachers, parents, and peers serve as powerful models for children. Observing a successful model can lead observers to believe that if the model can learn, they can learn as well (Schunk, 1987). According to Bandura, accomplished performance requires two components: self-efficacy and motivation. Self-efficacy refers to the conviction that one can successfully accomplish a specific task related to a certain outcome (Schunk, 1991). In other words, students' beliefs about their capabilities can directly impact their performance on academic tasks, which can increase their motivation to pursue further learning.

Social learning theory states that learners are shaped by the models in their environment. Single gender programs provide powerful models for girls in the form of same-sex teachers and peers. Conversely, in coeducational settings, researchers have found that:

- Female students'development may be depressed or impaired.
- Adolescent girls' self-confidence and self-esteem may be damaged.
- Female students may receive unequal treatment in the classroom and curriculum.

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- Teachers may devalue the work of females students as compared to males students. (Riordan, 1994, p. 180)

Educational research suggests that students' perceived self-efficacy has a direct impact on their choice of tasks, persistence, effort, and amount of learning (Bandura, 1993; Schunk, 1981). Students with a positive self-concept are generally more likely to achieve a greater measure of academic success than students with a poor self-concept (Marsh, 1989). Students who are confident in their ability to perform competently in school are more likely to succeed than those students with lower levels of confidence (Sarah, Scott, & Spender, 1980). Schunk and Zimmerman (1998) assert: "Learners obtain information about their performances, vicarious (observational) experiences, forms of persuasion, and physiological reactions. Students' own performances offer reliable guides for assessing self-efficacy. Successes raise efficacy and failures lower it. Students acquire efficacy information by comparing their performances with those of others. Similar others offer a basis for comparison. Observing similar peers succeed (fail) at a task may raise (lower) observers efficacy. From teachers, parents, and others, learners often receive persuasive information that they are capable of performing a task (e.g., 'You can do this')" (Schunk & Zimmerman, 1998, p. 141).

Research on adolescents indicates that girls experience a decline in self-esteem and loss of confidence resulting in a number of problems ranging from eating disorders to academic deficiencies (Brown & Gilligan, 1992; Orenstein, 1994; Pipher; 1994). Adolescent female students in coeducational school settings described feeling "intimidated and inhibited" by male students and experienced pressure from peers in such

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settings to achieve less academically. Research in recent years has documented the positive effects of single gender schools for girls in terms of self-esteem and locus of control (Cairns, 1990; Streitmatter, 1994, 1999).

Much of the research on gender and academic achievement has focused on the area of student attitudes and mathematics (Hyde, Fennema, Ryan, Frost, & Hopp, 1990). Females tend to view mathematics as a male domain. The Fennema and Peterson Autonomous Learning Behaviors Model (1985) offers the explanation that social influences, such as teachers and school environments, in conjunction with personal belief systems, including lack of self-confidence in mathematics, and the perceived importance of mathematics, combine to limit female students from achieving success in mathematics. Fennema and Sherman (1977) determined that the perception of females that mathematics is a male subject correlated with students' attitudes towards mathematics, specifically confidence in mathematics. Further research conducted by Tarte and Fennema (1995) produced results linking confidence as the strongest predictor of achievement in mathematics in female students. These findings are reinforced by social learning theory in relationship to self-efficacy. The behaviors modeled in coeducational classrooms reinforce female students' perceptions that male students excel in mathematics. This notion impacts female students' self-efficacy and becomes a perpetual cycle in which female learners in coeducational settings observe modeled behavior that intensify their low self confidence which in turn lowers self-efficacy, leading to lowered academic achievement.

Riordan (1990), in a comprehensive nationwide study of boys and girls in single-gender Catholic schools and coeducational public schools, found that boys and girls were

advantaged by the single-gender environment. Moreover, girls in single-gender environments demonstrated the highest scores of all groups, outperforming their peers in coeducational settings on academic instruments and affective measures, such as self-esteem and self-confidence.

Current efforts in single-gender education research have begun to explore the outcomes of gender and ethnic group difference (Riordan, 1990; 1994). According to the results of this research, single-gender schools provide an "empowering" atmosphere for Latina and African American female students academically and affectively.

Based on the research comparing single-gender to coeducational schools, it appears that girls in single-gender environments demonstrate greater gains academically across a range of content areas, and in affective measures of self-esteem and locus of control, than their peers in coeducational settings (Monaco & Gaier, 1992; Posnick-Goodwin, 1992; Riordan; 1990). Additional research in single-gender education and ethnicity produced further evidence of benefit for African-American and Latina students (Riordan, 1994).

Bandura's social learning theory posits that most knowledge is acquired through observational learning. By observing a successful model, observers acquire the belief that they can also succeed (Schunk, 1997). Single-gender education provides girls with a greater number of successful role models. Teachers in single-gender schools are often the same sex as their students (Riordan, 1994). In terms of academic and affective outcomes, single-gender schools may be more advantageous for girls and ethnically diverse students since the top students will be of their own gender and ethnic group, and thereby serve as successful peer models. In special education, where girls are outnumbered by boys in the classroom, single-gender programs could provide an environment conducive to learning

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and support for the students. This research assumed that the single-gender environment in the context of special education provides positive models for students and that observational learning through modeling has a significant impact on the affective development and attitudes of students. Additionally, adult and peer models are thought to have a positive impact on students' affective development in the special education single-gender setting (Streitmatter, 1999).

Assumptions

1. This study assumed that the participants will be honest and forthright when answering the interview questions.
2. This study assumed that the participants have adequate auditory processing and verbal skills needed to respond to the individual and focus group questions.

Limitations

1. The participants of the study were restricted to secondary level female special education students in one school district in northern California.
2. Single-gender special day classes were studied in an urban setting; generalizations are limited to secondary level urban schools.

Educational Significance

The literature yields very little research exploring gender issues and female students in special education. Current research efforts examining female special education students focus on students with emotional disturbance (ED) (Callahan, 1994; Caseau, Luckasson, & Kroth, 1994; Talbott, 1997; Talbott & Lloyd, 1997). There is no available research documenting the long term educational effects of single-gender special education programs on female students. Studies in general education settings suggest that

females in coeducational classrooms tend to receive less attention and have fewer opportunities to achieve academically than do male students (Grossman, 1998; Riordan, 1990; Sadker & Sadker, 1995).

Most of the research over the last 20 years on single-gender education has been quantitative in design and has failed to explore girls' classroom experiences in single-sex settings (Streitmatter, 1999). Quantitative research has not been definitive in providing answers as to whether or not single-gender programs provide a better learning environment for girls (Datnow, Hubbard & Woody, 2001; Mann, 1996; Streitmatter, 1999). Some studies show significant gains in academic and affective measures, while others contradict these findings (AAUW, 1998b). Qualitative research on single-gender programs appears to highlight the benefits for girls in such settings. In the single-gender environment, girls ask questions, speak out, take more risks, and are called on more than their peers in mixed-gender settings (Riordan, 1990, 1994; Streitmatter, 1994, 1999). Because of the renewed interest in single-gender education in the public and private school sectors, this qualitative study contributes to the small body of research concerning the impact of single-gender programs on girls in special education classrooms.

Female students, particularly Latinas, in special education are clearly at risk for failure in school. Latina students consistently leave school prior to graduation at a higher rate than any other ethnic group due to a variety of reasons ranging from language barriers and sociocultural attitudes, to lack of programs geared to meet their specific needs culturally and linguistically (AAUW, 1998a; De Leon, 1996; Ginorio & Huston, 2001; Hernandez, 1995; Ortiz, 1995; Portner, 1998). Research on female students with mild to moderate disabilities is sorely lacking. Given the overrepresentation of boys in

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special education classrooms, and the high risk factors facing female in special education, particularly Latina students, a serious problem has emerged that must be addressed. This research makes a contribution to this understudied area.

CHAPTER TWO

Literature Review

The effects of single-gender education have not been investigated in special education. Very little research exists examining the issues of females identified as learning disabled. This literature review will be divided into four general sections: the historical background of single-gender schooling and gender equity in education in the United States; the effects of single-gender secondary level education; the impact of single-gender education for female, at-risk, and minority students; and research related to female students in special education.

The studies selected for this review are international in nature, however, the primary emphasis is given to those studies focused on schools and programs in the United States. Research results that have been published in books, dissertations, journals, the internet or ERIC and Psych Info databases have been included in this review. The literature review is structured as follows:

- Section I provides an overview of the historical background of single-gender schooling and gender equity in education in the United States.
- Section II summarizes research conducted in secondary level single-gender settings and investigates some of the methodological issues involved in measuring the effects of single-gender education compared to coeducation.
- Section III reviews a recent trend in the research isolating the impact of single-gender education on female, at-risk, and minority students. Studies involving female students identified as receiving special education services will be included in this section.

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- Section IV reviews literature examining female students in special education.

History of Single Gender Schooling and Gender Equity in Education

Single-gender education is not a new concept. The American educational system has its roots in the Protestant revolt which considered education necessary for all individuals to understand Scripture. Within 10 to 20 years of settlement in America, the colonists established town schools, a Latin grammar school, and Harvard College (Kolesnick, 1969). The growing economy in the colonies created an additional need for literacy. Colonial women were often heavily involved in family businesses and commerce. These conditions provided some of the foundation for equal opportunities for men and women in the educational process (Riordan, 1990).

The establishment of "dame schools" took place in the kitchens of older women in the community. It was at this juncture that women established themselves as teachers in colonial America. The primary focus of the dame schools was to prepare boys for admission to the town schools which, until the 19th century, girls were not allowed to attend (Riordan, 1990). When girls were finally admitted to the town schools, they usually attended at different times of the day than the boys or on days when boys did not attend, such as summertime or holidays. The segregation of sexes in town schools marks the beginning of single-gender schooling in America.

At the close of the 18th century, most boys in colonial America attended dame schools and later continued in town schools. High performing boys attended academies and college. Girls also attended dame schools, but only a small percentage attended town

schools or academies. Educational institutions beyond the dame schools and single gender town schools were private, segregated by sex, and exclusive to wealthy families.

Concurrent with the establishment and growth of the coeducational public high school system in the 1800s was the single-gender seminary or academy movement. Led by Catherine Beecher, Emma Willard, and Mary Lyon, these institutions were modeled after the English finishing school. The function of the academy was to provide a moral, literary, and domestic education for young women (Riordan, 1990; Sexton, 1976). The Catholic Church played an important role in the burgeoning academy movement. By 1860, the Catholic population had increased to 3 million creating a great need for church-sponsored education. Seminaries served as a preparation ground for female teachers who were in growing demand to serve as educators in Catholic girls' schools (Riordan, 1990). The seminaries took on the training of teachers in an innovative manner, promoting dynamic teaching strategies and student cooperation (Sadker & Sadker, 1995). Eventually, the academy movement would lead to the establishment of the first women's colleges in the United States including Georgia Female College, Mount Holyoke Seminary, and Elmira Female College (Astin & Hirsch, 1978).

The western states needed money to support the emergence of colleges and coeducation was a viable alternative to single-gender institutions. This was not the case in the eastern states, however, where the established bastions of higher education remained financially independent. As a result, counterparts to the distinguished male colleges emerged in the form of affiliates. Affiliations with universities such as Harvard, Columbia, and Brown allowed women to participate, in a limited fashion, in the educational opportunities afforded to men in these prestigious institutions (Riordan,

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1990; Stock, 1978). In college, women were closely supervised and segregated from men. Toward the end of the 19th century, some state universities allowed women to enroll in their degree programs. The private institutions, however, did not follow this pattern. As a result, Smith, Mount Holyoke, Wellesley, Barnard, Radcliffe, Vassar, and Bryn Mawr were established to provide women with single-gender university environments designed to meet their specific educational needs.

Despite the emergence of single-gender colleges for women, by the beginning of the 20th century, secondary schools and colleges, both public and private, had become predominantly coeducational. Coeducation, however, did not insure equal opportunity in education. In 1918, the Commission on the Reorganization of Secondary Education would make a case for the creation of a two track system: one track would steer students, primarily males, toward college preparatory coursework, while the other track would provide vocational training. For White, Black, and other minority girls, the vocational track was encouraged. Even girls with strong academic records were required to take domestic science or home economics (Tyack & Hansot, 1990). Despite the expansion of women's role in society, through the mid 1960s, girls were channeled into occupational choices that were limited to four categories: secretarial, nursing, teaching, or motherhood (Sadker & Sadker, 1995).

In 1972, with the passage of Title IX, it became illegal to discriminate in schools on the basis of sex in school athletics, financial aid, career counseling, admission practices, and the treatment of students. Violators were at risk of losing federal funds. With the passage of the Women's Educational Equity Act (WEEA) in 1974, support was provided

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to assist schools in the recruitment of girls for math, science, and athletic programs. Teachers were provided with training to increase awareness of gender bias in curriculum and pedagogy. In the 1980s, however, funding for WEEA was drastically cut and equity, defined as treatment that is fair to women in form and result (Mann, 1996) was no longer a high political priority (Sadker & Sadker, 1995). Equity in education was replaced with words such as "effectiveness in the classroom" and, once again, the issue of girls in the educational process was undermined.

Recent interest in same sex education has resulted in the establishment of single-gender academies in California public schools. Research indicates that students of color may be particularly advantaged by such settings (Ascher, 1992; Riordan, 1994). Sections 2 and 3 of the Literature Review will explore these benefits.

Effects of Secondary Level Single Gender Education

From the 1980s to the present, a large body of research has emerged examining the effects of single-gender education on female students. Many of these studies have been conducted in the private school sector. Lee & Byrk (1986) examined the effects of single-gender education using data from High School and Beyond (HS&B, 1982). The purpose of their research was to determine whether school gender policies have "differential effects" on male and female students, and whether these effects are impacted by background differences of the students. The random sample (N = 1,807) included students from 75 Catholic high schools including 45 single-gender schools. The study included information from the students' sophomore and senior years. The research investigated the effects of single-gender education on a variety of measures including academic achievement, school-related attitudes and behaviors, educational aspirations,

locus of control, and self-concept. Data for male and female students were analyzed separately to control for gender differences. Individual and family background differences, curriculum track, and school social context were controlled to account for any pre-existing differences.

The results of the study suggest that there are clear and tangible advantages for students attending single-gender schools. Female students enrolled in such schools demonstrated statistically significant gains in reading and science achievement between the sophomore and senior years. Further, girls in single-gender environments demonstrated significantly higher educational aspirations, and some positive effects on attitudes toward academics. The researchers suggest that single-gender schools employ a more rigorous curriculum than their coed counterparts, and that in addition to gender, students and teachers share educational values.

Lee and Marks (1990) extended the research of Lee and Byrk (1986) to investigate whether the positive effects of single-gender education are sustained two to four years after high school graduation. The study incorporated High School and Beyond (1980) data for 1,533 college students who had attended Catholic high schools (N = 30 coeducational high schools; 45 single gender high schools). Separate analyses were conducted for male and female students to measure the effects of single-sex and coed secondary schools on attitudes, behaviors, and values of young men and women after graduation from high school (See Table 2). Data were collected from students' sophomore year in high school until their senior year in college.

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Table 2: Background and School Characteristics of Student Sample

Variable	Girls' Schools	Coed Schools	Boys' Schools	Coed Schools
N students	410	391	424	308
N schools	24	30	21	30
Track				
% Academic	88.2	88.8	88.4	87.4
% General	7.8	6.8	10.0	8.5
% Vocational	4.1	4.4	1.6	1.0
Ethnicity				
% White	84.2	82.0	82.1	91.2
% Black	2.6	4.4	6.3	2.6
% Hispanic	11.7	7.6	9.8	6.1
Academic Orientation				
% Repeated grade	5.9	5.0	7.6	8.3
% College plans	79.7	79.7	80.5	75.6

The results of the study demonstrated several sustained effects for young women who attended all-girl high schools. To measure the effect of single-gender schooling,

ordinary least squares regression and discriminant function models were estimated. Among the outcomes analyzed were aptitude tests, educational aspirations, characteristics of colleges attended, attitudes, values, and college satisfaction. The results were reported as estimated effect sizes (ES); only effects in which ES was at least .2 were considered statistically significant (See Table 3). Young women and men who attended single-gender high schools were more likely to attend selective four year colleges than their counterparts who attended coed schools. Additionally, young women from single-gender secondary schools demonstrated higher educational aspirations, less stereotypic attitudes toward women in the workplace, and greater satisfaction with academic and social (non-academic) aspects of their college experiences than male students who attended single-gender high schools and female students who attended coed high schools.

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Table 3: Estimated Effects of Attending a Single-Gender School on College Related Behaviors and Students' Values and Attitudes

Variable	Women N = 801 Effect Size	Men N = 732 Effect Size
Aptitude Tests		
Math	.07	.08
Verbal	.06	-.01
Educational Aspirations	.21*	.06
College Characteristics		
Community	-.03	-.26*
Highly selective 4-year	.36***	.35*
Catholic	.21	.21
Single-sex	.01	.13
Sex role stereotyping		
Family-centered	-.09	-.10
Work-centered	.23*	.03
College satisfaction		
Academic	.32**	.063
Non-academic	.33**	-.218

*p ≤ .05 **p ≤ .01 ***p ≤ .001

Cairns (1990) replicated work done by Lee and Byrk (1986) in the areas of self-esteem and locus of control for students attending single-gender and mixed-gender secondary schools in northern Ireland. The sample (N = 2,890) included students attending two different types of schools: type one was academically oriented, type two had a vocational emphasis. Both schools were government-run public schools. Cairns conducted two separate analyses on the single-gender and mixed-gender institutions according to school type (academic or vocational) and gender, using a two-way analysis of variance. The results suggest that, similar to the findings of Lee and Byrk (1986), male and female students attending single-gender schools are advantaged in terms of locus of control and self-esteem. In both studies, girls in single-sex schools demonstrated less sex role stereotyping and higher educational aspirations than girls in coeducational schools. According to Cairns, however, these findings are limited to single-gender schools with an academic orientation. The results of Cairns' study validate the benefits for male and female students in single-gender environments in the area of self-esteem and locus of control in relationship to cognitive competence.

Carpenter and Hayden (1987) used data on girls in their final year of high school (Year 12) in Victoria and Queensland, Australia to determine the relationship between school type, academic achievement, influence of parents, teachers and peers, and school curriculum. Multiple regression analysis was used to identify the strongest predictors of girls' academic success in coed and single-sex schools. The study was controlled for higher socioeconomic status (SES) and private school attendance in relationship to

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variables of parent educational levels, school type, teacher, parental and peer encouragement, and proportion of science courses taken in Year 12. Science coursework has been shown to be a significant predictor of academic achievement in high school in Australia (Elsworth, Day, Hurworth & Andrews, 1982).

In Victoria and Queensland, maternal educational level was the most important predictor of school type choice for girls (coed or single-gender). In Victoria, attendance at a single-gender school was associated with a higher degree of academic achievement. In Queensland, school type had no significant effect. When variables of teacher, parental, and peer encouragement, and school curriculum were added, academic achievement in both groups were significantly associated with teacher encouragement and participation in science coursework. In Victoria, attendance at a single-gender school was a significant predictor of girls' academic achievement, enrollment in Year 12 science coursework, and positive associations with teachers and peers.

Riordan (1990) utilized the HSB (1982) data to investigate the effects of single-gender and mixed-gender education on four curriculum-based measures and three social-affective outcomes for boys and girls in Catholic schools. The data were analyzed separately by gender to differentiate the effects of school type by sex. Additionally, the data were analyzed according to gender and ethnicity to determine the effects of school type on African American and Latina students (n = 283 African American & Latino males; n = 361 African American & Latino females). For both samples, researchers controlled for initial ability, including scores on general achievement tests, as well as family background, curriculum, and environmental measures, such as participation in sports. As in the Lee and Byrk (1986) study, data were analyzed separately to control for

gender differences. The study yielded statistically significant results for girls in single-gender schools on academic measures. Results suggest that, overall, girls in single-gender schools performed better on academic measures in the subject areas of civics and science than their counterparts in mixed-gender environments by the end of their senior year in high school (see Table 4). In addition to providing same-sex role models, single-gender environments appear to provide more opportunities for academic success and leadership.

Table 4: Adjusted Senior-year Test Score Differences Between Female Students in Single-Gender and Mixed-Gender Catholic Schools

(Expressed as a Percentage of One Grade Year Equivalent) ($N = 619$)

Curriculum Specific Tests	Unadjusted Senior Year Difference	Adjusted for Initial Ability	Adjusted for Initial Ability and Home
Advanced Math	0.5	0.3	0.2
Writing	0.3	0.4	0.2
Science	0.5	0.9	0.9*
Civics	0.6	0.6	0.6*

* $p < 0.05$

Gould (1995) conducted exploratory research examining teacher interaction patterns with a group of academically able high school students (defined as students who scored in the 95th or above percentile on standardized testing) placed in pre-calculus classes at a public high school. Over a period of 24 weeks, 150 students (75 males; 75 females) participated in a math equity study. Students spent 12 weeks in mixed-gender classes and 12 weeks in single-gender classes. Two math teachers, one male and one

female, participated in the study. Both teachers had participated in gender-sensitivity training. The assumption was that the teachers' background in gender equity would enable them to be cognizant of gender-related interaction patterns. The pre-calculus classes were held in 80 minute blocks every other day. The first part of class was devoted to direct instruction; the second part of class was conducted in a cooperative learning format. Classroom observations and semi-structured interviews were used to collect data addressing the research questions.

The teachers indicated that despite their training they were unable to relate to the coed and single-sex groups evenly. Both teachers reported that they had to initiate and continue questioning with the all-girls group, but not all-boys. The teachers also reported greater satisfaction teaching the all-boys group because the boys appeared to be more engaged in the learning process. Teachers differed in their test administration to the coed and single-gender groups. The all-boys group was treated in a "businesslike" fashion, whereas the all-girls group received "nurturing" treatment. For example, the male teacher gave three sentence instruction to the all-boys group, but extended interaction to 12 + sentences with the coed group and all-girls groups. Both teachers reported that they called on girls less frequently in class. The lesson presentations for all groups appeared to be the same, however the learning process seemed to be approached more aggressively by boys. Boys asked and answered more questions and talked more in general than girls in coed and single-gender classes.

The researcher concluded that in spite of gender equity training, ingrained interaction patterns appear to be extremely difficult to alter. Further, even though high ability students could be expected to have more interaction skill than mid-level ability

students, this is not the case for girls. The results of the study suggest that boys and girls have qualitatively different experiences in school, and these experiences appear to favor boys.

Single-Gender Research On Minority and At Risk Populations

A limited body of work examines the impact of single-gender education on at-risk and minority students. Riordan (1990) studied a national sample of African-American and Latino students attending single-gender and coeducational Catholic high schools over a two year period of time. The study examined the extent of academic and personal growth of the students compared to their counterparts in coeducational settings. This study was a follow-up of research conducted in 1980 using data from the High School and Beyond Study (1982). The sample included 39 schools, with an African American and Latino population of 70%. Students in single-gender schools reported higher participation in academic programs, more weekly hours of homework and higher test scores on curriculum based tests (See Table 5).

Table 5: African American / Latina Female Student Characteristics by School Type

Student Characteristic	Single-Gender School	Coed School
% of Students in Academic Program	67*	48
Weekly Homework Hours	7.1*	5.1
Test Scores (Curriculum specific)	22.8*	19.4

*p< .05, two-tailed test. Comparisons are by school type.

The overall results across four outcome variables of leadership ability, academic test scores, self-esteem, and environmental control yielded statistically significant results ($p < .05$) for Latina and African-American female students ($N = 361$) attending single-gender schools in all areas of leadership, except self-esteem (See Table 6). Although the study did not produce statistically significant results for self-esteem, it is important to note the limitations of the measure utilized. Self-esteem was measured by a brief questionnaire employing a Likert scale measurement with four statements (e.g. "I take a positive attitude toward myself"). Recent studies of girls and self-esteem verify the importance of in-depth, qualitative methodology to provide an accurate measure of this variable (AAUW, 1999; Orenstein, 1994; Streitmatter, 1999).

Table 6: Average Adjusted Senior Year Differences for Latinas and Black Female Students Attending Single-Gender Schools

Regression coefficients are based on the weighted sample.

Latinas and Black Females (N = 361)	Adjusted for Sophomore Score and Home Background	Adjusted for Sophomore Score, Home Background and Formal School Variables	Adjusted for Sophomore Score, Home Background, Formal and Informal School Variables
Leadership	.26*	.19	.20
Test Scores	.21*	.22*	-.06
Self-Esteem	-.09	-.01	.14
Environmental Control	.22*	.12	-.02

*p<.05, two-tailed test

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For each year of attendance in a single-gender environment, Latina and African American female students attained significantly higher results on measures of academic achievement, leadership, and environmental control. Overall, Riordan's (1990) study provides a convincing argument supporting single-gender education for African-American and Latina students as a means of acquiring a quality education both academically and affectively.

Streitmatter (1999) conducted qualitative research exploring the impact of single-gender school programs on four different sites: a private girls school in Connecticut, an all-girls middle school math and science class within a coed public school setting, and two high school sites, on mixed-gender public school campuses, for girls only in math and science, in Arizona. The public school sites were coed schools with single-gender classrooms set up within the context of the mixed-gender setting. This format is similar to the proposed research site for the present study. Streitmatter used in-depth interviews with teachers, administrators, and students enrolled in the single-gender classes. Analysis of the educator data yielded a wide range of teacher preparedness and commitment to teaching in a single-gender environment. A universal theme that arose from the teachers' perceptions was a belief that girls tended to do better academically in a single-gender environment than they would in a coed environment. Further, in single-gender classrooms, the overall climate was one in which girls were freer to "be themselves."

The student data revealed a similar picture whether the girls attended a private academy or public school single-gender classroom. The girls unanimously agreed that, without boys, their learning was enhanced and that the overall experience led to greater academic benefit. The girls felt less risk and intimidation in the classroom, and found it

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easier to get work done without the presence of boys. Relationships between girls were strengthened and they felt more empowered in the single-gender environment.

Of particular interest for the purposes of this study is the program on the public high school campus that included a math and special education class for at-risk and special education students co-taught by a math teacher and special educator. Streitmatter's research is the first to include single-gender special education within the public school setting, as well as students of ethnically diverse groups from varied socioeconomic backgrounds, in a qualitative format. Streitmatter found a striking similarity of the findings among girls in single-gender special education classes to their counterparts in single-gender general education settings, despite the range in ethnicity, socioeconomic background, age, and academic standing. Girls in the single-gender special education class reported better concentration in class, less intimidation and embarrassment when speaking out in class, and greater motivation to succeed in school. Furthermore, both teachers in the special education class felt that the single-gender environment provided not only opportunity for greater academic success, but a setting to discuss issues such as teen pregnancy in a supportive atmosphere.

In a three-year study of California's single gender academies, researchers utilized qualitative, case study research methods to analyze data collected from 12 single-gender public school academies (six all-male single-gender academies and six all-female single-gender academies in six separate school districts) (Hubbard & Datnow, 2000). The purpose of the study was to assess the effects of single-gender education in the context of public schools. With state funding available for districts, Governor Wilson's priority was to establish all male schools for at-risk boys and female schools emphasizing math and

science (Datnow, Hubbard & Conchas, 2001; Datnow, Hubbard & Woody, 2001). Most of the students enrolled in the academies were low income students of color. Three members of the research team visited each of the single-gender academies four to five times resulting in over 300 interviews and observations. Teachers, principals, parents, students, and district officials were interviewed. Researchers examined the origin of the academies, why teachers and students chose to participate, the professional backgrounds of teachers, teacher collaboration, and curriculum. Other questions related to teacher and student perceptions of gender and ethnicity. Principals, teachers, and students were also asked about the benefits and weaknesses of the single-gender academies. Data were coded to identify emergent themes and case reports were produced to facilitate comparisons between the academies.

The findings of the study raised some interesting issues in relationship to the practice of gender equity in the context of the single-gender setting. It appears that contrasting dynamics take place in the single-gender atmosphere. On one hand, while teachers express viewpoints and engage in activities that promote gender equity, their actions and interactions, at times, reinforce stereotypical roles for girls. As the researchers state, "In some cases, educators' practices appeared to lead toward increased gender equity, however, in other cases, their practices appeared to be rooted in gender stereotypes. These findings suggest that single gender schooling can both foster gender equity and promote stereotypical attitudes towards the opposite sex, in contrast to prior research that argues that single gender schools by their very nature lead to one or the other" (Datnow, Hubbard & Conchas, 2001, p. 29).

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The findings suggest that some students feel the single-gender environment has provided positive academic experiences. Girls report a freedom from the distraction of the opposite sex, thereby allowing an opportunity for greater academic focus. Further, many of the students enrolled in the single-gender academies were performing poorly in their previous placements and experienced positive academic gains as a result of academy attendance. Despite these benefits, girls report an increase in socially aggressive behaviors, such as fighting over friendships and gossiping, in the single-gender atmosphere.

The emphasis of the academies in four of the six districts was to provide a "resource-rich" environment to meet the educational needs of low achieving, at-risk youth. In this context, the experiment appears to be successful, however, when the funding was exhausted, five of the six districts closed their programs.

Research Examining Female Students in Special Education

Special Education Referral

There is very little research exploring issues related to female students in special education. A disproportionately higher number of boys are served in programs for youth with emotional and behavioral disorders (EBD). Callahan (1994) suggests that a combination of factors contribute to the male-dominated special education programs for EBD and LD students. "Although a variety of specific causes have been postulated in the literature (including temperamental differences, social expectations for behavior, and the adverse effects of a feminine school experience), there is general support for the position that a combination or interaction of causal factors is responsible for the male-dominated sex ratio in EBD classrooms" (Callahan, 1994, p. 231). Causal factors include differences

in social-cultural attitudes and behaviors towards boys and girls, teacher interactions with students that reinforce stereotypical roles of boys and girls in the classroom, and differences in referral and evaluation of boys and girls for special education services. Callahan (1994) refers to social learning theory (Bandura & Walters, 1963) as a possible cause of the development of sex differences and behaviors, through the modeling and reinforcement of specific gender behaviors by significant models. This leads him to speculate that teachers and school administrators may interact differently with boys and girls, and thereby impact the numbers of boys and girls referred for special education services.

Differential treatment of students by gender in the context of general education has been examined in depth by researchers in recent years (AAUW, 1992; AAUW, 1998a; Grossman, 1998; Sadker & Sadker, 1995) and continues to be a prevalent problem in schools today. Callahan raises important issues related to future research in light of the paucity of studies investigating female students in special education. One recommendation presented is the exploration of the possible benefits of same-sex grouping of special education students, particularly at the elementary school level.

Green (1993) conducted a study utilizing questionnaires, qualitative interviews, and field notes on a sample that included classroom teachers, psychologists and support personnel, and students identified as having special educational needs. The researcher was interested in examining teachers' perceptions of students with special needs. A higher proportion of boys were described as aggressive and problematic in comparison to girls (53% of boys; 47% of girls). In contrast, more girls were identified as having social or emotional problems (20% of girls; 15% of boys). These findings are confirmed by

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research examining different types of aggression manifested by boys and girls identified as EBD. Girls experience a higher degree of socially aggressive behaviors, including gossiping, spreading rumors, and rejection of certain individuals, whereas boys report very little of this type of behavior (Cairns, Cairns, Neckerman, Ferguson, & Gariepy, 1989).

What emerged from Green's research was a general lack of awareness about the girls. "Both professionals with direct contact and those with indirect contact elaborated many more details about the boys than they did the girls. There were vivid anecdotes and detailed records of achievement about the boys, whereas details relating to the girls often amounted to " 'Well, I never really know what to say about her' or 'I so often forget about her/don't get around to her, never really know what she has done' " (Green, 1993, p. 78). These comments underscore the recurring themes that follow girls through every phase and form of special education; inattention to, unawareness of, and lack of concern about the status and condition of the female student.

Caseau, Luckasson, and Kroth (1994) conducted an exploratory study examining the process of identification of girls for special education services in the category of Serious Emotional Disturbance (SED). The authors of the study collected data from three groups of students: students identified as SED in public schools (n = 53), students identified as SED receiving inpatient services at a psychiatric hospital (n = 24), and students not identified as SED receiving inpatient services at a private psychiatric hospital (n = 40). Data were collected according to referral source, referral reason, age, grade, gender, home composition, achievement and IQ test scores, and behavior ratings (Harrison-Caseau, 1990). Boys outnumbered girls in the SED public school placements

and SED identified inpatient hospital settings. However, girls outnumbered boys in the non-identified hospital placements (See Table 7).

Table 7: Number and Percentage of Males and Females by Group

Group	Males f / %	Females f / %	Total f
SED Public	42 / 70.2	11 / 20.8	53
SED Hospital	22 / 91.7	2 / 8.3	24
Non-Identified Hospital	19 / 45	22 / 55	41
Total	83 / 82	35 / 35	118

The researchers suggest that although girls had problems severe enough to require hospitalization, such as major depression, family conflict, low self-esteem, and suicidal tendencies, these problems were not of the type typically identified by schools as reasons for referral of girls for special education services. The high rate of hospitalization for girls not identified for special education may possibly be characteristic of the overall denial of educational services, or at least a denial at an early stage of intervention for female students.

In this study, girls who were referred for special education programs in schools had comorbidity between school related problems (e.g. disruptive classroom behavior and defiance toward authority) and psychiatric problems, such as depression and suicidal

ideation (See Table 8). The results of this research highlight the discrepancies between the educational referral of girls for special education services and psychiatric identification of girls for treatment of emotional disturbance. Caseau, Luckasson, and Kroth (1994) call for a "refined" definition of SED, and assessment instruments and procedures that will attend to the distinctive needs of female students.

Table 8: Reasons for Referral to ED School Program (*N* = 53; 11 Female; 42 Male)

Referral Reason*	Frequency		Percentage	
	Male	Female	Male	Female
Depression	0	5	0	45.4
Suicidal Ideation	0	4	0	27.2
Withdrawn Behavior	1	6	2.3	54.4
Lacks Motivation	5	1	19.9	9.0
Low Self-esteem	0	4	0	36.3
Disruptive Class Behavior	30	8	71.4	72.7
Defiant of Authority	19	6	45.2	54.5
Aggressive Toward Others	10	1	23.8	9.0
Inc. Assignments	9	4	21.4	36.3
Truancy	8	3	19.0	27.2

* Students were referred for more than one reason

The overrepresentation of boys in special education programs has often been interpreted as a lowered prevalence of disabilities in girls. This assumption has come under recent scrutiny. It is now thought that there is possibly an equal prevalence of disabilities such as attention deficit disorder and specific learning disabilities in male and

female students (Berry, Shaywitiz, & Shaywitz, 1985; Shaywitz, Shaywitz, Fletcher, & Escobar, 1990).

Social Aggression

In elementary-school-aged children, behaviors observed in boys such as hyperactivity, restlessness, aggression, and class disruption occur in equal prevalence in girls (Epstein, Kauffman, & Cullinan, 1985). Longitudinal research confirms these findings (Cairns & Cairns, 1994). Special education teacher reports and behavioral observations reveal no significant differences between aggressive behaviors of male and female students identified as antisocial in elementary school students (Cairns & Cairns, 1984). These similarities disappear, however, when general education teachers are asked to rate behaviors of such girls (Talbott, 1997). By junior high school, aggressive behaviors change for boys and girls. According to Talbott (1997), special education researchers must "keep their eyes sharp" when assessing the behaviors of girls during this critical stage of development. Assessment of social aggression is a recent phenomena. Currently, two methods to measure social aggression are utilized. Cairns and colleagues (1989) have used in-depth interviews that assess conflict and aggression according to student status in the social group. Crick (1996) developed a faster measure that does not account for social status, but focuses on girls' perceptions of peers. What is particularly alarming is the tendency of antisocial girls with social cognitive disabilities to associate with older delinquent peers. Further, association with such peers can increase the possibility that these girls will eventually drop out of high school (Talbott, 1997).

It is evident that researchers must focus their efforts on developing appropriate assessment tools for adolescent antisocial girls. Additionally, methods for treatment and

intervention for this time critical group are lacking. Talbott (1997) suggests that researchers must refine assessment tools that connect participation of adolescent girls in socially aggressive acts and poor academic performance. Talbott further posits that if links are established between aggressive acts and lowered academic performance and girls' later association with delinquent peers, researchers will be able to inform teachers how to increase academic performance in the context of the social group before girls start associating with delinquent peers.

Summary

A review of the literature reveals different perspectives regarding the overrepresentation of male students in special education. Callahan (1994) argues that a variety of causal factors account for this phenomena, while Green (1993) and Caseau, Luckasson and Kroth (1994) purport that girls are largely ignored and overlooked in the special education identification process. Caseau and colleagues call for a redefinition of the criteria for emotional disturbance, to the extent of inclusion of behaviors reflected in girls with ED. Talbott (1994) recommends careful scrutiny of the behaviors associated with emotional disorders and supports the work of Cairns et. al. (1989) that attributes differences in behaviors of boys and girls during adolescence as being key to identifying ED behaviors. The researchers are in agreement regarding the need for refined assessment instruments for female students, and attentiveness to the specific and distinctive needs of girls in special education.

Overall, the literature yields little research exploring gender issues with regard to female students in special education, particularly students of color. Current research efforts examining female special education students focus on students with emotional

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disturbance. Research on female students with mild to moderate disabilities, however, is sorely lacking. Further, despite the wide range of research documenting the effects of single-gender education on female students in general education settings, there is no specific research reporting the educational effects of single-gender special education programs on female students.

Callahan (1994) suggests that same sex special education may provide a more positive environment for female students. Qualitative research on single-gender programs appears to highlight the benefits for ethnically diverse, at-risk students in such settings (Datnow, Hubbard & Woody, 2001; Mann, 1996; Streitmatter, 1999). Current goals for single-sex programs include enhanced academic success of girls in math, science, and technology coursework, and the creation of environments that provide pedagogical support for culturally and linguistically diverse learners (AAUW, 1998b). Latina students in special education are clearly at risk for failure in school. This present study will incorporate previous qualitative single-gender research in general education public schools (Datnow, Hubbard & Woody, 2001; Streitmatter, 1999) to a single-gender special education program for girls, with an emphasis on Latina students with mild to moderate disabilities.

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CHAPTER THREE

Research Methodology

A qualitative research approach was used to investigate the impact of single-gender special day classrooms on female high school students identified as learning disabled in one urban school district in northern California. The study utilized classroom observations, focus group interviews, and individual interviews to gather information on the impact of the single-gender and mixed-gender programs. In addition, class assignments, homework, and other classroom documents were collected. Female special day class students, teachers, and program administrators of single-gender and mixed-gender special day classrooms were interviewed. Open-ended and semi-structured questionnaires developed by single-gender program researchers at Johns Hopkins University were used for the interview protocols. The protocols are discussed in the instrumentation section. Transcription allowed content analysis of the interviews to be used for developing generalized themes that addressed the research questions. Follow-up individual interviews with the students were conducted at a later date as a method for member checking and to further explore emergent themes (Lincoln & Guba, 1985). According to Lincoln and Guba (1985), member checking can contribute to the credibility and trustworthiness of the data (See Analysis of Data Section).

School and Student Characteristics

"The choice between us is chaos or community" Martin Luther King, Jr. (posted on the school site)

The campus where the study took place was a public coeducational high school located in an urban center in northern California. The high school was one of seven in the district and had the largest special education program district-wide. In June 2001, the high school was shut down due to unsafe conditions in the main campus buildings. In September 2001, the campus reopened in portables located on the school property. The special education classrooms were situated in one wing of the new campus. Students and teachers reported that they liked the new classrooms because of location (previous special education classrooms were scattered across the campus), better physical conditions, and air conditioning. The original building was built in 1927 and had been in a state of disrepair for some time.

The special education program had five special day classrooms, defined as classes in which students with mild to moderate learning disabilities spent 50% or more of their day in the same classroom. Special education students were placed into either single-gender or coeducational classes in their freshman year and remained with the same group of students and teachers throughout their placement in the program or until high school graduation. According to the program administrator, placement in single-gender and mixed-gender classrooms was not based on academic or behavioral criteria. Girls were randomly placed into classes after being identified for special education services. Some students were mainstreamed into general education courses during the school day. According to all reports, the program provided a sense of continuity and family for the students and teachers.

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In order to qualify for the special education program, students must have been performing at least two years below grade level in two or more academic areas. The school district developed assessments which were culturally and linguistically sensitive to the needs of Latino students. Placement of students into special education programs was carefully monitored in the school district. The school district was unified which allowed students and parents to select the campus and special education program that they would like to attend.

The single-gender special education program on the research site was initiated in 1997 as a response on the part of the department chairperson to concerns about attendance and issues related to the self-esteem of female students in the program. Male and female students attending single-gender classes demonstrated improvement in attendance rates and academic growth as a result of participation in the newly established program. As student numbers increased, single-gender classes were added and teachers were hired for the new positions; two male teachers were recruited for two all-male classes, and one female teacher was hired for the all-female class. Teachers hired for these positions were said to have strong commitment to working in a single-gender environment.

At the time of this research, the program consisted of two all-male classes, one all-female class, and two coeducational classes. The program has not incurred any operational costs and the school district is aware of the separate gender program, but has expressed reluctance to endorse the program due to conflicts related to Title IX regulations. These issues will be discussed in Chapters IV and V.

Student enrollment on the research site at the time of the study was 1,354. Latino students accounted for approximately 26% of the total school population (n = 350) (See Table 9). There were 195 students identified for special education services; 41% of the students in the special education program were Latino (n = 80). Of those students, 69% were male (n = 50) and 31% were female (n = 30). The majority came from low income households.

Table 9: Ethnicity of Students (N = 1354)

Ethnicity	f	%
White	581	42.9
Latino	350	25.85
Asian-American	242	17.88
Pacific Islander	65	4.8
Filipino	32	2.37
Indian / Alaskan	1	.07

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Participants

The participants for this study were 15 female special education students (See Table 10). The students attended single-gender and mixed-gender special education classrooms, and were in their first, second, or third year of the program, (freshman to junior year of high school). Participants ranged in age from 15 to 18 years old. Six of nine Latina participants reported that Spanish was the primary language spoken at home; the other participants spoke English only at home. Of the six Latina students that spoke

Spanish at home, four were born in Mexico and one was born in El Salvador. With the exception of one participant, all students came from low income neighborhoods. Six students came from single-parent families and five students reported that either one or both parents did not graduate from high school.

Table 10: Demographics of the Female Special Education Participants (N = 15)

Ethnicity	Coed Class (n=4)	Single Gender Class (n=11)
Latina	2	7
African American	2	2
White	0	1
Pacific Islander	0	0
Filipina	0	1

In addition to the students, special education teachers and high school administrators involved in the implementation of the single-gender and mixed-gender special education program were interviewed as informants to verify and triangulate the data collected from the student participants.

Participant Recruitment

The researcher first contacted the Superintendent's Office of the district selected for this study. The purpose of the study and requirements of the district participants were discussed. The Superintendent's Office agreed verbally to give consent for the study and a one page summary of the study was sent to the director of research for approval in the district. Upon receiving verbal approval, the researcher contacted the principal of the

school selected for the study to set up a meeting with the principal, special education department head, and special day class teachers. After a telephone conference with the school administrator, the researcher was introduced to teachers who were interested in the study. Each participant received an Informed Consent Form (See Appendix C) and a copy of USF's Research Subjects' Bill of Rights (See Appendix C). After reading these two documents, the participants acknowledged their consent by signing the Informed Consent Form before proceeding to make arrangements for the interviews.

The researcher visited the classrooms of the teachers interested in participating in the study to recruit student participants. Based on a list of interview candidates, obtained from teacher recommendations that matched the purposes of the study, students were invited to participate in 90 minute focus group interviews, with the understanding that there was no obligation to do so. The researcher asked those students interested in the study to take a packet including a Parental Informed Consent Form (See Appendix C) and return envelope, and a copy of USF's Research Subjects' Bill of Rights. All materials sent home were written in Spanish and English. The students were asked to take the forms home and discuss the study with their parents. Parents signed the forms and returned them to the researcher. After receiving the consent forms, the researcher met with the interested students to make arrangements for the focus group interviews. All four female students in the coed classroom chose to participate in the study. All students in the single-gender classroom expressed interest in the study, however, only those who returned signed consent forms participated (11 of 13 students).

Instrumentation

Prior to beginning the dissertation, the researcher worked as an assistant coding

qualitative data for a separate study of California's public school single-gender academies conducted through Johns Hopkins University. The interview protocols from the single-gender study were adapted with permission of Dr. Amanda Datnow for the purposes of this investigation. Dr. Datnow also provided consultative assistance in the data analysis of this research (See Letter of Support in Appendix D). The interview instruments were originally developed by the research team from Johns Hopkins University based on their involvement in a three-year longitudinal study of California's single-gender academies (Datnow, Hubbard, & Woody, 2001; Datnow, Hubbard, & Conchas, 2001; Datnow & Hubbard, 2000; Hubbard & Datnow, 2000) (See Appendix C). The protocols were later adapted for use in the single-gender and mixed-gender special education environment. In this study, interviews with teachers and administrators were administered individually. The interviews with students were conducted in a focus group format. Follow-up interviews with students, after an initial analysis of the data, were designed according to issues that arose after the focus group interviews.

Parent Advisory Panel In an effort to incorporate a broader perspective into the research, the researcher formed an advisory panel of interested Latino/a parents to review the focus group and individual survey questions (See Appendix D). Parents were recruited from an outside school district similar to the research site by word of mouth. The researcher attempted to locate parents that closely matched the families associated with the study. Input and recommendations from the advisory panel were incorporated into the research design. The final results of the study were shared with the panel and feedback from the panel members was included in the dissemination of the findings for

parents, students, practitioners, and administrators. The intent of inclusion of parents in the research process was to better understand Latina special education students in the context of the family.

Pilot Study

Prior to this investigation, a pilot study was conducted at a private suburban Catholic school for girls in the San Francisco Bay Area. The school was the only site accessible to the researcher with a single-gender program for girls identified as learning-disabled. The program is based on a Resource Specialist model, in which girls are mainstreamed into general education classrooms for over 70% of the time and receive small group instruction in a learning center specific to their disabilities for the remaining part of the day. The participants for the pilot study are those female special education students enrolled in the Special Needs Learning Center program. One special education administrator involved in the implementation of the single-gender special education program was interviewed as an informant to verify and triangulate the data collected from the student participants. The demographics of the research participants are similar to the overall school demographics. The three students selected for the study range in age from 15 to 16 years old. The students were invited to participate in 60 to 90 minute interviews, with the understanding that there was no obligation to do so.

Over the span of one week, the researcher observed in a mainstream single-gender classroom on two separate occasions as an observer-participant, resulting in four hours of classroom observation. The observed class included two of the interviewees; the third

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interviewee was absent on the days of the observations. The site administrator was not able to provide the researcher with access to the small group instruction meetings, however the researcher was able to observe the Learning Center during designated drop-in times, when students came on an informal basis to receive extra help with school work. Descriptive field notes were used during the classroom and learning center observations. As an observer, the information obtained through the observations supported the data collected from the individual interviews with the students. Observations of the girls in the classrooms also provided specific information pertaining to the classroom behaviors of the students. Relevant documents, including program philosophy, and admissions policies were collected. A tape recorder, with a back-up and 90 minute tapes, was used to avoid interrupting the interviews. The transcribed data from the interviews were coded and tallied according to the emergent themes that arose from the interviews. Several themes emerged throughout the process of the pilot study. In response to the original research questions examining the experiences of girls in a single-gender program for students with learning disabilities, several issues came forth repeatedly in various forms. The school philosophy, the program mission articulated by the administrator, the observations of girls in class, and the words of the girls pointed to lots of contradictions and conflicts. These conflicts were subtle. It took time to process them, and compare and contrast these ideas with the interview data, documents, and observations.

The outcomes of the pilot study suggested a need for adjustments to the interview protocols. For example, several interview questions were adapted to encourage more elaboration from the participants about their experiences as females with learning

disabilities. The original protocol (Datnow, Hubbard & Woody, 2001) was designed for a general education environment and did not address specific issues related to special education. The following questions were added to the interview instrument:

How would you describe the all-girls special education environment that you experience at .....?

How would you describe the other students who are in the single-gender special education class (program)?

What were the benefits of attending an all girls special education class (program)? Drawbacks?

Do you think girls have similar experiences / opportunities in coed special education classes (programs)? Please explain.

What do you think about special education? How does it feel to be a girl in special education?

Procedures

Individual Interviews

Individual interviews were conducted with the program administrators and classroom teachers of the single-gender and mixed-gender classes (See Appendix B). The data collection procedure, including the use of a tape recorder, with a back-up and 90 minute tapes, was used to avoid interrupting the interview. At a later date, follow-up interviews were conducted with administrators and teachers on an as-need basis to clarify issues that emerged during the first course of interviews.

Focus Group Interviews

The focus group semi-structured, open-ended structure is supported by Vaughn, Schumm, and Sinagub (1996) as being a method to:

> ...provide alternative interpretations of findings that may not be obtainable

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> using traditional quantitative methods (e.g., why high school students are more likely to complete homework for some teachers than for others) interview can both unravel fairly complex problems to be pursued through further research procedures and address fairly simple issues. The focus group can also facilitate decision-making and provide further information from the stakeholders (p.6-7).

Female students from single-gender and mixed-gender special day classrooms were interviewed in homogeneous (single-gender or mixed-gender) focus groups. Students were interviewed in focus groups of three to four participants. A transcription from each interview was generated to record the responses. Interview questions addressed the research questions pertaining to classroom behaviors, school attitudes, and gender identity. The researcher conducted individual interviews with students to clarify information collected from the initial focus group interviews.

Observations

Over the span of four months, the researcher and graduate assistant observed in both mixed-gender and single-gender classrooms two days a week (four hours per visit) as a participant/observer resulting in over 25 classroom observations. In addition to instructional time, the observations included lunchtime, breaks, and before and after school interactions. The purpose of the observations was three-fold:

1. To establish rapport and help build relationships with the students and classroom teachers.
2. To observe interactions on three levels:
    a. Student to student interactions
    b. Student to teacher interactions
    c. Student to paraprofessional interactions

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3. To observe the classroom behaviors and attitudes of the students

The researcher and graduate assistant utilized descriptive field notes (Bogdan & Biklen, 1998) and a rubric to measure classroom behaviors (See Appendix A). The rubric was designed by the researcher to measure classroom behaviors, such as answering teacher initiated questions, hand-raising during discussions, asking questions, and completion of in-class and homework assignments during classroom observations. The rubric allowed the researcher to be focused and systematic throughout the observation process. As an observer, the information obtained through the observations supported the data collected from the focus group interviews and individual interviews with the students. Observations of the girls in the classrooms also provided specific information pertaining to the classroom behaviors and attitudes of the students.

Inter-Rater Reliability Training for Graduate Assistant

A two hour session was conducted for training the graduate assistant to use the rubric for measuring classroom behaviors. Training continued until satisfactorily high levels of agreement were obtained on a pilot test of 1 female special education student. Rating equivalence, defined as agreement between coders, was established by the percent of agreement between the researcher and the graduate assistant. The inter-rater reliability coefficient for observed classroom behaviors on one female special education student was .89.

Data Analysis

The transcribed interviews, field notes, information from the classroom rubric, and documents were organized according to dates, place setting, and individual and focus group interviews. The researcher reviewed the data to get a sense of the overall picture

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emerging from the various information sources. The transcribed data from the individual and focus group interviews were coded according to the emergent themes that arose from the focus groups and individual interviews. The notes and data collected from the classroom rubric and classroom observations were transcribed to provide information related to the classroom behaviors and school attitudes of the students, and were also coded thematically.

The researcher and graduate assistant utilized Hyperresearch software for content analysis of the data. The program was used to code all of the data, retrieve and manipulate portions of coded source material, and test propositions about the data on various codes and combination of codes using Boolean searches. Additionally, the software allowed the researcher to produce reports that aligned the coded text into categorical themes.

Detailed description and in-depth quotations were included to provide understanding and insights into the themes that arose throughout the data analysis process. The researcher looked for quotations and observations that fit together to highlight a particular theme, issue, or idea. The data was labeled and indexed to organize the material into meaningful and manageable categories. Questions that developed from the transcribed reports were presented to students on an as need, individual basis in an interview format to verify data previously collected. These interviews were transcribed, read, and tallied. A second analysis of results was developed from the transcribed data to identify other themes that emerged from the study.

Validation and Verification of the Data

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Once the major themes that emerged from the data were described and interpreted, the data was examined for any competing themes. Patton (1987) suggests two methods:

1. *Rival explanations*

   Search inductively for other ways of organizing the data that may lead to different findings. Failure to find strong evidence for alternative explanations can increase the validity of the analysis.

2. *Negative cases*

   Search the data for exceptions that "do not fit the rule." In an effort to bring forth negative cases that deviate from the original explanations of the data, an honest picture of the findings is presented.

Triangulation of the Data

In order to support the validity and credibility of the findings, a variety of triangulation methods were employed. A range of data sources were used in the study. Different people representing various status positions were interviewed. These included female students with LD, special education teachers of single-gender and mixed-gender classrooms, and program administrators. Additionally, participant observations were be conducted by two evaluators, a trained graduate assistant and the primary researcher. Finally, multiple methods were utilized to study the problem, including individual and focus group interviews, classroom observations, data collected from the classroom behavior rubric (See Appendix A), and documents collected from the site, such as class assignments, school communication bulletins, and school philosophy.

Final Analysis of the Data

The final analysis of the data was guided by the research questions. The findings were organized into four sections:

1. *Introduction* overview of the analysis procedure
2. *Observational data* frequency counts of observed classroom behaviors were tabulated and analyzed
3. *Edited dialogues* excerpts from participants' responses to interview questions
4. *Analysis of the findings* based on the research questions of the study, the interviewees' responses were discussed
5. *Summary* summarization of the findings

Finally, conclusions from findings of the study, discussion, and recommendations were made based on the results of the investigation. This section included recommendations for the district, special education personnel, and future research. The recommendations serve as guidelines for increasing awareness about the specific needs of female, particularly Latina students in special education.

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CHAPTER FOUR

RESULTS

Introduction

This chapter reports the findings according to the four research questions posed in this qualitative investigation. The study examined the impact of single-gender special day classrooms on female high school students identified as learning disabled in an urban school district in northern California. Classroom observations, a Classroom Observation rubric (See Appendix A), focus group interviews, and individual interviews were utilized to gather information on the impact of the single-gender and mixed-gender programs. In addition, class assignments, handouts, and other classroom documents were collected. Chapter IV presents the results of these findings.

Special Education Classroom Characteristics

Coeducation Special Education Class

The coeducational classroom in this study is a permanent portable, with beige carpeting and vinyl walls. There are posters on the wall with pictures of presidents past and present, as well as writing and grammar rules. All student desks face the whiteboard. The classroom has two computers and bookshelves. The teacher's desk faces the students from the front. The paraprofessional (instructional assistant) is situated at the back of the

room behind the students. The teacher is a middle-aged White male who operates a contracting business outside of school. He sometimes hires male students from his classes to assist him on jobs. The teacher has been in special education for over 15 years. He describes the students as a "tough group of kids that have been kicked out of classes for behavior problems." He often speaks to students in a sarcastic and hard-edged manner. The teacher banters frequently with the boys; the girls are largely ignored unless they speak out.

All students sit in their seats working on assignments. The overall tone in the classroom is controlled, but there is continuous conversation going on throughout the class period. Topics range from baseball, to wild game, and girls. Over the course of the day, discussions take place; formal and informal. During formal class discussion, students are required to raise their hands to speak. During informal discussions, students are free to speak out. The teacher refers to his class as "the last stop" before continuation high school. He views his students as "behavior problems, not learning disabled." The teacher's stated goal is to teach students life skills and manners. The girls in class are described as very "tough." Two of the four female students in the coed class have probation officers.

Single-Gender Special Education Class

The single-gender classroom in this study is a fairly spacious permanent portable. The classroom layout is open with the teacher's desk set off to the side and student desks arranged in clusters. Students can choose their seating arrangements. Some students sit with their desks placed together; other students are seated in the computer area of the classroom. The paraprofessional is seated close to the teacher and interacts frequently

with the students. The teacher is a young White female with two years of teaching experience. She has a warm personality and smiles easily, especially when she talks about "her girls." The teacher is in her first year with the single-gender class and has a maternal/friendship relationship with the students. The teacher interacts in a relaxed fashion with the girls about class work and other topics that arise. The students freely talk out and are not required to raise their hands during formal or informal discussions in class.

Students seem very comfortable and relaxed in their environment. They are free to get out of their seats as long as they remain on task. Girls are permitted to eat and drink at their desks (crackers, chips, soda, coffee, water). The teacher touches the girls frequently; she is nurturing yet firm. The students demonstrate respect for the teacher; they comply with her requests and do not argue. The Latina students speak Spanish and English to each other. One student in class is pregnant. The other students are very preoccupied with the details of the pregnant girl's status. The teacher stated that she wants the student to remain in the class for the duration of her pregnancy.

Participants

The participants for this study included 15 female special education students attending either single-gender special day (SGSDC) and coed special day classes (SDC). There were four female students in the coed class; two Latina and two African-American. Their ages ranged from 15 to 18 years old. The Latina students are first generation Mexican-American. Eleven of thirteen students in the single-gender class participated in the study; seven students are Latina, two are African-American, one Filipina, and one White. The SGSDC was also multi-aged. Three of the SGSDC Latina students were born

in Mexico and one was born in El Salvador. These students came to California in early childhood and speak English as a second language. With the exception of one Latina student, all of the participants are from low income families; five students reported that either one or both parents did not graduate from high school.

In addition to the students, special education teachers and high school administrators involved in the implementation of the single-gender and mixed-gender special education program were interviewed as informants to verify and triangulate the data collected from the student participants.

Findings for Research Question 1

Question 1 asks how classroom behavior differs for girls in secondary level single-gender special day classrooms (SGSDC) and coeducational special day classrooms (Coed SDC). Classroom behaviors were measured by observations of classroom activities, such as answering teacher initiated questions, hand-raising during discussions, asking questions, and completion of in-class and homework assignments. A rubric was used to measure the number of times students demonstrated behaviors such as hand-raising, answering and asking questions, and participating in class discussions. Additionally, interview questions directed to the teachers of the coed and single-gender classrooms were designed to triangulate and verify the observation of these behaviors.

Tables 11 and 12 summarize the results for each classroom in terms of frequency counts of observed classroom behaviors. Classroom behaviors were analyzed according to class type and student ethnicity. The number of female students observed in each class was unequally distributed due to the fact that only four girls were enrolled in the coed class in contrast to 13 in the single-gender class. For the purposes of this study, the

Classroom Observation rubric was used to observe four girls, on six separate occasions, in the single- gender class, and four girls in the coed class, on six separate occasions, for 30 minute intervals. The students were randomly selected for observation from the single-gender to class to match the ethnicity of the students in the coed class. In the single-gender class, students 1 and 2 were Latina and students 3 and 4 were African American. Similarly, in the coed class, students 1 and 2 were Latina, and students 3 and 4 were African American (See Tables 11 & 12).

Table 11: Frequency Count Classroom Behaviors of Students in Single-Gender Special Day Classroom (SGSDC)

BEHAVIOR: SG CLASS	S1-L	S2-L	S3-A	S4-A	Total
1. Hand raising independently/ prompted by teacher	2	4	3	2	11
2. Answers questions prompted by teacher	8	13	14	16	51
3. Interacts in classroom discussion	15	17	22	13	67
4. On task during class (i.e. taking notes, reading, seatwork)	6	8	12	4	30
5. Turns in completed assignments	3	3	3	3	12
Total Number of Observable Class Behaviors	34	45	54	38	171

Key: S1-L, S2-L, S3-A, S4-A

Students # 1-L = Latina Student in SGSDC; Student #2-L = Latina Student in SGSDC

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Student # 3-A = African American Female Student in SGSDC; Student # 4-A = African American Female Student in SGSDC

Table 12: Frequency Count of Classroom Behaviors of Students in Coed Special Day Class (Coed SDC)

BEHAVIOR: COED CLASS	S1-L	S2-L	S3-A	S4-A	Total
1. Hand raising independently/ prompted by teacher	2	6	12	14	34
2. Answers questions prompted by teacher	2	5	10	14	31
3. Interacts in classroom discussion	1	6	11	14	32
4. On task during class (i.e.taking notes, reading, seatwork)	4	3	7	12	26
5. Turns in completed assignments	N/O	N/O	N/O	N/O	N/O
Total Number of Observable Class Behaviors	9	20	40	54	123

Key: S1-L, S2-L, S3-A, S4-A

Students # 1-L = Latina Student in Coed SDC; Student #2-L = Latina Student in Coed SDC Student # 3-A = African American Female Student in Coed SDC; Student # 4-A = African American Female Student in Coed SDC
N/O = Behavior Not Observed

Five classroom behaviors were observed, recorded, and tabulated to provide a comparison between female students in the single-gender special education classroom and the coeducational special education classroom.

Behavior 1: Handraising independently and/or prompted by teacher

Handraising refers to behavior on the part of the student to raise her hand during a class discussion or to receive assistance from the teacher. The total frequency count for two Latina SGSDC students on handraising behavior, over the course of six observations, was six. The total frequency count for two Latina students in the coed class for the same amount of time, during a similar class period (Study Skills/ Language Arts), was 8. The frequency count for two African American female SGSDC students during the same observation period was 5. The two African American female coed students were demonstrated handraising behavior 26 times. The total frequency count for Behavior 1 (handraising) was 11 in the single-gender class, and 26 in the coed class over a six week period of both the single-gender and coed classrooms.

Students in the single-gender class raised their hands 301% less frequently than their counterparts; it is important to note that the teacher in the coed classroom requires students to raise their hands in response to teacher-initiated and student-generated questions, whereas the single-gender classroom teacher does not have this rule. Students in the single-gender classroom are encouraged to speak out in class during class discussions. The Latina and African American single-gender students had comparable frequency rates on this behavior.

Behavior 2: Answers questions prompted by teacher

Question-answer behavior refers to action on the part of a student to directly respond to a question posed by the teacher to the class as a whole or to the individual student. The total frequency count for two Latina SGSDC students on question-answer behavior, over the course of six observations, was 21. The total frequency count for two Latina students in the coed class for the same amount of time, during a similar class period (Study Skills/ Language Arts), was 7. The frequency count for two African American female SGSDC students during the same observation period was 30; the two African American female coed students demonstrated question-answer behavior 24 times. The total frequency count for Behavior 2 (question-answer) was 51 in the single-gender class, and 31 in the coed class over a six week period of both the single-gender and coed classrooms.

Overall, students in the single-gender class demonstrated question-answer behavior with 61% more frequency than their coed counterparts. Latina students in the coed classroom were observed answering a question in class only 7 times over a six week period.

Behavior 3: Interacts in classroom discussion

Classroom interaction behavior refers to verbal participation on the part of a student during any kind of class discussion, formal or informal. Formal discussion is defined as discussion related to academic or content areas of instruction; informal discussion refers to discussion that takes place between students and/or the teacher on topics such as movies or weekend activities. The total frequency count for two Latina SGSDC students on classroom interaction behavior, over the course of six observations, was 32. The total frequency count for two Latina students in the coed class for the same

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amount of time, during a similar class period (Study Skills/ Language Arts), was 7. The frequency count for two African American female SGSDC students during the same observation period was 35; the two African American female coed students demonstrated classroom interaction behavior 25 times. The total frequency count for Behavior 3 (classroom interaction) was 67 in the single-gender class, and 32 in the coed class over a six week period, during 12 (six per class) 30 minute observations of two classrooms; single-gender and coed.

Classroom interactions were recorded with 201% greater frequency in the single-gender classroom compared to the coed classroom. In the SGC, frequency counts were evenly distributed between Latina and African American students. The Latina students in the coed classroom interacted with 357% less frequency than their African American class peers.

Behavior 4: On task during class

On task behavior refers to nonverbal behaviors such as taking notes, working on class assignments or reading class materials. The total frequency count for two Latina SGSDC students for on task behavior, over the course of six observations, was 14. The total frequency count for two Latina students in the coed class for the same amount of time, during a similar class period (Study Skills/ Language Arts), was 7. The frequency count for two African American female SGSDC students during the same observation period was 16; the two African American female coed students demonstrated on task behavior 19 times. The total frequency count for Behavior 4 (on task during class) was 30 in the single-gender class, and 26 in the coed class over a six week period in both the single-gender and coed classrooms.

Overall, on task behavior was observed with comparable frequency in the single-gender and coed class, however, coed Latina students had 271% fewer recorded incidents of on task behavior than their African American coed classmates. Observation notes indicate that coed Latina students often had their heads on their desks, asked to go to the bathroom for extended periods of time, or drew pictures. The teacher usually did not comment on these behaviors.

Behavior 5: Turns in completed assignments

Completed assignments refers to teacher directed activities that result in a final product collected by the classroom teacher. The total frequency count for two Latina SGSDC students on assignment completion behavior, over the course of six observations, was 6. The total frequency count for two Latina students in the coed class for the same amount of time, during a similar class period (Study Skills/ Language Arts), was not observed. The frequency count for two African American female SGSDC students during the same observation period was 6; the two African American students in the coed class were not observed on this behavior. The total frequency count for Behavior 5 (turns in completed assignments) was 12 in the single-gender class. Over a six week period, students in the coed classroom were not observed turning in any completed assignments.

The single-gender students each turned in one completed assignment during three of six class periods observed (1 assignment per student/per class). An example of one completed assignment observed was a report turned by student pairs as part of a history unit of study. The single-gender students had specific assignments listed on the board during each class session, whereas the coed students worked individually on "classwork packets" (e.g. math worksheets, question-answer worksheets, geared to grade level of

individual student). Classwork packets are used by some special education teachers as a method for giving academic work over a long period of time in an individualized format. The packets are usually turned in at various points in the semester or when they are completed. Students generally work at their own pace.

Findings for Research Question 2

Question 2 asks how school attitudes differ for girls in secondary level single-gender special day classrooms and coeducational special day classrooms. School attitudes were measured by general affective statements indicating positive or negative feelings toward school reported in focus group and individual interviews. School attitudes included relationships between students, teachers, and peers, student attitudes about academics, and student perceptions of the school environment.

School attitudes of students in the single-gender and coed classes were compared according to specific categories and themes. Figure 1 provides an overview of the separate categories and themes that were content analyzed.

Figure 1: School Attitudes by Category and Theme: Single Gender/Coed Classroom

I. Relationships/Interactions	II. Academic Attitudes	III. Perceived Environment
1. Student: female/ female	1. School attendance	1. Comfort level
2. Student: female/ male	2. Grades	2. Distractions
3. Student / teacher	3. Assignments, classwork	3. Special ed class

Category I: Attitudes of Students in SG and Coed Classes Toward Peers and Teachers

Several trends emerged from the interviews with students in the single-gender special day class (SGSDC). Girls generally reported positive relationships with same sex

peers in class. They commented repeatedly about the freedom they felt to discuss personal issues, and the lack of inhibition they felt to ask questions, participate in class, and stand up during presentations in front of their female peers. As one student explained: "You can talk about more personal stuff, and you don't have to worry about guys teasing you and you are more free. I used to be scared to read in front of guys, now I am not afraid."

This was a contrast to the descriptions of students' previous experiences in coed environments. The students in the single-gender class reported feeling very intimidated in coed environments. When attending coed classes, students were afraid to ask questions for fear of being ridiculed by male peers and were reluctant to participate in class discussions. The company of all female peers was described as being comfortable and safe. Two Latina students reported feeling "shy" in front of male students for two reasons, first, the fear of being laughed at and teased and second, the fear of not speaking English fluently. This fear was heightened by the fact that both students were in classes in which they were one of two girls in a special education class with 12 to 13 boys. Both students reported feeling at ease in the SGSDC with female peers. As one Latina student stated:

> They'll (boys) talk about us, pass notes, sometimes make you feel uncomfortable, say little stupid slurs, like sexual, or something negative, or put you down saying you're dumb or something like that… in a special ed class with both genders, I never felt comfortable with it. I felt I should keep quiet, just so nobody would pass judgment on me. But in here we're all the same sex, we all understand what we're going through. I can express my feelings, nobody's shy, everybody's friends, so I like it, it's better.

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Several students in the single-gender class commented about the benefits of mainstreaming for two or more classes as an opportunity to interact with male peers. Students agreed that they missed the company of boys, however, most students agreed that time in the SGSDC was the most productive and enjoyable in terms of relationships.

Single-gender classroom students made a clear distinction between relationships with male and female teachers. Nine of eleven SGSDC students interviewed indicated a preference for female teachers for three reasons:

1. Girls receive more attention from a female teacher in class
2. Girls are not afraid to ask for help from a female teacher
3. Girls feel more comfortable talking about personal issues with a female teacher

Overall, SGSDC girls reported getting along better with female teachers and felt that male teachers did not understand their specific needs in the classroom. One student explained: "If you have a problem, like a girl problem, you're not going to tell the male teacher. He's going to say 'Oh yeah, you need a female to help you with this problem'..... It's better with a female (teacher)."

The coed class students agreed with this sentiment and indicated that they did not feel they had much in common with their male teachers.

> Latina Coed SDC Student: .... They (the boys) always have more to talk about with Mr.K. Because they're boys, they're closer to Mr. K. They ask him questions that don't have to do with girls.
>
> Researcher: Do you feel if there was a female teacher you would relate better?
>
> African American Coed SDC Student: Yes, we do (relate) with C. (the female instructional assistant) but she goes out (of the room) a lot. If there was a girl (female teacher) here it would be nice.

Category II: Academic Attitudes of Students in Single Gender and Coed Classes

Academic attitudes of students revealed several themes. Students in the single-gender special day classroom reported improved attendance compared to previous years in coed classes. This information is verified by the SGSDC teacher; as she explained:

> SGSDC Teacher: The main goal is to graduate them, to get them through high school. There are little personal goals within that .... that they have self-confidence and that they are attending school regularly....but the main objective is to get them to graduate high school and to pass their exams.
>
> Researcher: So the single gender program is seen as a way to accomplish that?
>
> SGSDC Teacher: Absolutely, especially in attendance because before they weren't attending school, and now I think I had maybe just a few truancy letters that went out, but before it was a lot of truancy letters, so I'm not as concerned with attendance now; it was a real concern before. (The teacher had previously taught in a coed special education class on the same campus).

Two students describe their attendance patterns in the following except:

> Latina SGSDC Student: I used to be absent because I didn't like going to my classes. I mean, I didn't see the point if I'm going to be failing.
>
> Researcher: So now you come to school more?
>
> Latina SGSDC Student: Yes, now I come more.
>
> Researcher: How is your attendance in general?
>
> Latina SGSDC Student: It's better. I come every day except when I have a doctor's appointment and that's pretty much all.

Teacher records, and teacher and student interviews indicate that, overall, attendance is higher for female students in the single-gender classroom compared to their counterparts in the coed classrooms.

Student grade point average and attitude toward school work revealed similar patterns to the rate of attendance for girls in the single-gender class. The researcher was not granted access to student transcripts due to issues of confidentiality, however, teacher

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grade books and teacher and student interviews demonstrated a positive trend in school attitude, grade point average, and performance in Latina SGSDC students as evidenced in the following dialog:

> Latina SGSDC Student: My grades are going up now, because usually I used to get an F in English and I used to flunk Math.
>
> African American SGC Student: That's what I notice in this class, when it's time to go to work, it's time to go to work…
>
> Latina SGSDC Student: Nobody messes around.
>
> White SGSDC Student: …and when you're finished you can talk with another person who is finished but you have to respect the other ones that are studying or taking a test or something.
>
> Researcher: You were in a coed class last year? How are you doing this year compared with last year?
>
> Latina SGSDC Student: I'm actually doing way better than I was. I was failing some of my classes, they were getting too hard for me, and I just couldn't keep up with my work.
>
> Researcher: Do you find that it's easier to keep up with work this year (in SGC)?
>
> Latina SGSDC Student: Yes, and you can do all your work here, you don't have to take it home.
>
> Researcher: You've all been talking about your grades. Tell me a little bit more about that.
>
> Latina SGSDC Student: Mine went from D's and F's; now they're A's and B's.

Attendance for female students in the coed class was a serious problem. During the six week period, female students were frequently absent during observations, and one Latina was on probation for truancy. The Latina student was eventually expelled from the class for truancy and referred to a continuation high school. According to the coed teacher, lack of attendance is the greatest obstacle for female students achieving high

school graduation. The coed class girls viewed making it to graduation as a struggle, as evidenced in this excerpt:

> African American Coed SDC Student: Mr. K is nice, but like today we talked about careers and are we are going to graduate… Mr. K said "No, forget that, you're never going to do that."
>
> African American Coed SDC Student: I know why he does that, he's trying to use reverse psychology. He's like, "You're not going to do it." So in you're mind… you think I'm going to do it and prove it to you. I still don't like that, I don't know why.
>
> Researcher: So you have to fight for it. Do you think that works?
>
> Latina Coed SDC Student: Sometimes.
>
> Latina Coed SDC Student: In a way.
>
> African American Coed SDC Student: Mr. K said I would never graduate, but you know what? I'm going to do my best to graduate, because I'm not going to be a fifth year senior.

Category III: Student Perceptions of the Single-Gender and Coed Classroom Environment

Comfort Level

Students in the single-gender special day class commented repeatedly on the degree of comfort they experienced in the all-female environment. In four focus groups with SGSDC students, this theme emerged consistently. The following excerpt reflects this point:

> Researcher: How would you describe the all-girls environment to someone?
>
> Latina SGSDC Student: It's comfortable to be in here. You get a lot of help in here.
>
> Researcher: How about other students in the class? How do you think the other girls feel about being in here?

Latina SGSDC Student: They feel comfortable.

When asked to elaborate about the benefits of the single-gender environment, this sense of feeling comfortable was again articulated.

Researcher: What are some the other benefits of attending an all-girl's class?

Filipina SGSDC Student: You just feel good being in this class…

African American SGSDC Student: If you want talk about anything, you're free to talk, and you get help.

Latina SGSDC Student: Sometimes even if you have problems outside school, our teacher will help us.

Students in the coed class, on the other hand, expressed feeling tense and guarded. It seemed that the coed classroom students experienced the environment in terms of "us and them"; the girls felt that they had to defend themselves against the boys' harassment.

Latina Coed SDC Student: They (the boys) just act dumb, like they always talk about girls. They ask you stupid questions like, "Oh have you got your period" or "Damn she's big, she has a big ass."

African American Coed SDC Student: It's like tits, ass and everything else just stays in their mind ….

African American Coed SDC Student: Pretty much they're not thinking with their heads, they're thinking with their pitos (penis) ….. 99% of the time, sex is on a guys mind, just because they're guys.

The coed teacher viewed the girls as tough and able to stand up to the boys. He explained, "If a girl can come into my class, she can hold her own. She can probably beat up half the boys." This viewpoint, however, contradicts the perceptions of the girls.

Latina Coed SDC Student: They (the boys) feel overpowering. They feel that they have power over us because they are boys and there are more of them.

One Latina student expressed frustration at not being heard or respected for her

opinions.

Latina Coed SDC Student: A lot of time I want to tell them something, but if I do,

but they don't listen to me. It's just, "Damn, why don't you just shut up."

Researcher: Why do you think they do that?

Latina Coed SDC Student: They want to hear their own voices instead of other people.

Distractions

Distractibility was another recurrent theme for girls in the single-gender and coed classes. Girls in the single-gender and coed classes perceived themselves as motivated to stay on task and focus on schoolwork while in class. The girls in both classrooms expressed frustration and discomfort with the continuous teasing from boys. It appeared that girls were not distracted by the presence of boys in the classroom, but the boys' behaviors towards them created a struggle for girls to remain focused.

As students in the single-gender class commented:

White SGSDC Student: I pay attention in just this class (single-gender). Before, I

couldn't pay attention.

Researcher: How come?

White SGSDC Student: I don't know, just distractions, the boys always doing stuff and talking and all that.

Researcher: What kinds of things would they do that were distracting?

Latina SGSDC Student: They'll talk about us, pass notes, sometimes make you feel uncomfortable, say little stupid slurs, sexual, or something negative, or put you down saying you're dumb..... in a special ed. class with both genders, I never felt comfortable. I just felt I should keep quiet, just so nobody would pass judgment on me. But in here we're all the same sex, we all understand what we're

going through. I can express my feelings, nobody's shy, everybody's friends, so I like it, it's better.

The girls in the coed class had a similar experience:

African American Coed SDC Student: They're always distracting me, but I try not to let it get to me. If I'm being distracted, I'm trying to put myself in a position to where I'm not gonna be distracted … but Mr. K. distracts you a lot, too.

African American Coed SDC Student: Yes, that's true.

Latina Coed SDC Student: They (the boys) are always talking across (the room). They just talk because they have a mouth, but when you tell them be quiet, they won't. They'll just get louder and louder …

Distraction has emerged as a major theme throughout this study in the single-gender and coed classroom interviews. This issue will be discussed in greater detail in Chapter V.

Perceptions of Special Education

Students had strong views about their placement in coed and single-gender special education classrooms. There appeared to be contradictions in their feelings about special education. On one hand, girls felt they were being helped by the individualized attention and lower students numbers in special day classes. They also experienced more success because of the modified instruction and adaptations of the curriculum. Special day classes, whether coeducational or single-gender, were perceived as a place to catch up on work assigned in mainstream classes and to learn academic skills without feeling intimidated by non-disabled peers. On the other hand, girls in both classes expressed shame and frustration about the misconceptions other students have about what it means to be a learning-disabled student in special education. The following excerpt from an interview with single-gender students highlights this theme:

Researcher: How do you feel about being in special education?

Latina SGSDC Student: At first, I was kind of … asham d, I really didn't want to be in special education (special day class at the high school) because of the stories, lies, and the rumors that I heard about it. But special ed is not that way at all; it's a place where you get attention … one on one attention. It's not that we're doing anything different. We're smart and intelligent too. We just have a couple of learning disabilities and we need help with them. There's nothing wrong with special ed.

Latina SGSDC Student: I feel more comfortable, because, like she said, one on one, not one teacher with thirty kids… In the other classes, you have to wait for the other kids to finish with the teacher and then you don't get the answer when the bell rings. In here you can stay over lunch … and if the teacher is with another student, they come back to you. In other classes, they do sometimes, but with a lot of kids they forget.

Researcher: What do kids outside of the class say about special education?

African American SGSDC Student: They'll say, "Is that (class) for dumb people?"

Latina SGSDC Student: Yeah, that's what I don't like. They make fun of you and say, "It's going to be all girls, and you don't have any guys."

The challenges of disability are compounded for girls in coed special education as a result of the alienation they experience from non-disabled peers, and the teasing and namecalling that occurs in their special day classes. Girls in single-gender SDCs report feeling supported and encouraged by their teacher and peers. This, however, is not the experience of girls in coed special education.

Latina Coed SDC Student: Everybody from this school thinks that special ed is for dumb people…

African American SDC Coed Student: Retarded people …

Latina Coed SDC Student: People think we're retarded, but we're not … it's just a class, it's a normal class.

African American Coed SDC Student: But what I don't understand is that my

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> friends know I'm in special ed, and they don't have a problem with it. But when I go out there, around the (boys), they'll say "You're in special ed, huh?" I'll say, "Yeah, so?" They'll say, "You're dumb." I'll say, "You're in it, too, so what's the big point?" That's what gets on my nerves.

Findings for Research Question 3

Question 3 asks how gender identity differs for girls in secondary level single-gender special day classrooms and coeducational special day classrooms. Gender identity was measured by self statements about student perceptions of gender, gender differences, and implied statements related to self-esteem reported in focus group and individual interviews.

The messages girls in this study internalized and expressed about gender from parents, teachers, and peers were complicated and contradictory. Girls were encouraged by some teachers to set high goals and to believe in themselves. On the other hand, they experienced put downs from male peers on the basis of their disability and gender. Most often there was no intervention on the part of teachers to deal with these behaviors. The question of gender created a range of mixed feelings for girls as reflected in the dialog from the SGSDC interview:

> Researcher: How about being a girl in general? How does being a girl affect your experience in school?
>
> Filipina SGSDC Student: I think it's very frustrating, it's very hard to be a female, and a lot of people think that ladies, especially guys, have it easy. But that's not the case because when we're going through school, we're going through a lot of stuff, it's not just school. We have jobs, we have to go to school, we have our bodies changing, we have sexual things, our hormones. Everything's growing, we're confused about a lot of stuff.
>
> Researcher: What are the messages you get from people about being a girl?
>
> Latina SGSDC Student: Being proper, sitting up straight, everything, you can't do this, you can't do that, you have to cry, you have to be sensitive, everything

like that. Sometimes it's hard for me, or it's hard for a lot of females to do that because we want to express who we are, not who people want us to be. So I think that a girl can do anything a guy can do and sometimes even better.

The discussion of gender in relationship to ethnicity raised a new discussion of challenges and stereotypes facing Latina students. Students articulated awareness of societal perceptions regarding their gender in relationship to ethnicity.

Researcher: Tell me what message you get about being Latina?

Latina SGSDC Student: For us Latinas, when we're having problems, we just drop out of school.

Latina SGSDC Student: Some people say "I won't drop out," but they still do.

Latina SGSDC Student: I like being a Latina, but in a way I don't, because maybe people are going to say "She might be in a gang" ...

Latina SGSDC Student: Just by looking at us they think we're gang members. Just because we're Latina .... you need to get to know a person before you start judging them.

Researcher: Your friends outside of this class? What do you think?

Latina SGSDC Student: I have two friends, one's a dropout, and the other one goes to (Continuation high school). The one that dropped out, she had a baby, so she is telling me, "You better stay in school."

This dialog reveals the complex nature of the experiences of Latina students. Furthermore, their perceptions of gender and ethnicity are reinforced by sexist attitudes towards these students as revealed in the following comments made by the coed classroom teacher:

Coed SDC Teacher: Every ethnic group is different. It might be stereotyping, but Latino girls wear different makeup, unbelievably sexy outfits, as though they're ready to lay down on the floor and have sex right then and there.... All the girls (Latinas), I think, want to have babies, and lead their family to a better life. They are miserable at home and can't do what they want .... we're talking 14 and 15 years old.

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Findings for Research Question 4

Question 4 examines the specific benefits for Latina students in single-gender special education classrooms. Benefits of single-gender special education classrooms were measured by general affective behaviors and statements indicating positive or negative feelings toward single-gender special education as reported in focus group and individual interviews with Latina students, and teacher records.

Three themes emerged for Latina students in single-gender classes; attitude, achievement, and support. Latina students agreed that they had a more positive attitude toward school as a result of attending the SGC.

> Researcher: Do you think your attitude toward school has changed since you've attended single gender classes?
>
> Latina SGSDC Student: Yes, it has… now I like coming to class.
>
> Researcher: And you didn't like it before?
>
> Latina SGSDC Student: No, I didn't like it. I didn't care if I graduated, now I do.

Achievement for these students improved dramatically as a result of attending a single-gender special day classroom. Two areas of improvement were documented in attendance and grade point average, as measured by student self-report and teacher records. According to these sources, all of the Latina students previously attending a coed special day class within the past one to two years, demonstrated higher attendance rates and grade point averages as a result of attending the single-gender program. The researcher was not granted access to student transcript records, however based on teacher reports and grade books, Latina students in the single-gender classes demonstrated academic improvement.

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Support from teachers and parents was another important benefit of single-gender classroom attendance. This particular group of students reported very strong support from home and school.

> Researcher: What kinds of messages do you get from your parents about being a Latina? What do you think they want you to do with your life?
>
> Latina SGSDC Student: Graduate.
>
> Latina SGSDC Student: Work hard.
>
> Latina SGSDC Student: They want me to go to college. My parents are supporting me 100%, they're right there with me.
>
> Researcher: How about your teachers? What do you think your teachers want you to do?
>
> Latina SGSDC Student: (In the single-gender class) you get the help that you need. The teachers care and they want you to graduate.

These themes recurred throughout the interactions with students; single-gender special education was viewed overall as an affirming and positive experience for Latina students in a safe and comfortable environment.

Summary

Single-gender special day classrooms appear to have a positive effect on female students who attend them. In comparison to female students attending coed special day classrooms, students in single-gender special day classrooms report increased school attendance, higher grade point averages, and improved attitudes toward school. These self-reports are confirmed by teachers and program administrators, as well as teacher records. Coed classroom students, on the other hand, report lower attendance, and higher incidences of truancy. This information is verified by teachers and administrators, and teacher records.

School attitudes of single-gender SDC students and coed SDC students also reveal contrasts. Single-gender classroom students described the classroom environment as comfortable, supportive, and work-oriented. The coed SDC students described their experiences in the classroom as combative and distracting. Girls experience harassment from male students in class on a consistent basis. These perceptions were confirmed by extensive classroom observations.

Gender identity is a complex issue for female students in single-gender and coed classrooms. Students in both settings describe conflicting messages from parents, teachers, and peers regarding their gender. On one hand, girls report receiving affirming messages from teachers and parents related to academic and vocational pursuits. On the other hand, girls describe feeling intimidated by male peers and restrained by rules established by their parents because of their gender.

Latina students in single-gender special day classrooms appear to be advantaged in single-sex environments compared to their counterparts in coed classrooms. Latina SDC students interact in class with greater frequency, attend school more often, and experience greater academic success than Latina students attending coed SDCs. Single-gender environments are empowering for Latina students for three reasons; the absence of boys gives them more confidence to speak out and participate, the single-gender environment is less distracting, and the Latina students report feeling greater support and more attention from teachers in single-gender classrooms.

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CHAPTER FIVE

DISCUSSION

Introduction

This study examines the impact of single-gender special day classrooms on female high school students identified as learning-disabled in an urban school district in northern California. The discussion focuses on explaining the identifiable differences between the experiences of female students attending single-gender and coeducational special education classes, as well as comparing these results with earlier studies investigating the impact of single-gender programs on general education students in public school settings (Datnow, Hubbard & Conchas, 2001; Datnow, Hubbard & Woody, 2001; Streitmatter, 1994, 1999).

Discussion of the Findings: Classroom Behaviors

The differences in classroom behaviors of female students attending single-gender and coed special education classes suggest that single-gender environments provide an

atmosphere conducive to participation in class and completion of schoolwork. In this study, classroom behaviors were measured by observations of classroom activities, such as answering teacher-initiated questions, hand-raising during discussions, asking questions, and completion of in-class and homework assignments. Overall, girls in the single-gender class interacted with greater frequency, were observed on task during class, and produced more completed assignments than their counterparts in the coed classroom. These findings concur with research conducted by Streitmatter (1999) which reported that without boys in the classroom, girls were more focused on learning and found it easier to get work done. Furthermore, girls reported better concentration in class, less intimidation and embarrassment when speaking out in class, and greater motivation to succeed in school (Streitmatter, 1999).

Students attending the single-gender special day class (SGSDC) in the present study, articulated the contrast of their previous experiences in coed single-gender classrooms as evidenced in the following excerpt:

> Latina SGSDC Student: I never really got good marks (grades).... I was not participating, and that was because I felt like I couldn't express myself ... now I participate.
>
> Filipina SGSDC Student: Me too. I can't express myself when I'm in front of guys, because they start laughing or ... make fun of you; like how you speak or how you say something. When it's all girls, they realize they have the same problem.

It is well documented in the literature that female students in coeducational classrooms receive less opportunity to participate and less feedback from teachers than their male students (Grossman, 1998; Riordan, 1990; Sadker & Sadker, 1995). These conditions are heightened for female students with learning disabilities for three reasons:

- The number of male students in special education classrooms exceeds female students by 6 to 1
- Female students referred to special education usually have more severe learning disabilities than boys, which increases their difficulty to participate in class
- Male students tend to bully female students in special education classes

Data from the present study suggest that single-gender special education environments provide an atmosphere for greater class participation, opportunity for increased learning and productivity, and greater completion rates of schoolwork for female students.

Discussion of the Findings: School Attitudes

School attitudes of female students attending single-gender and coed special education classes were compared in three areas: teacher/peer relationships, academic attitudes, and student perceptions of the classroom environment.

Relationships

Overall, single-gender SDC students reported favorable experiences with female teachers in single-gender classes and positive relationships with their peers. Girls in the coed classroom did not feel they had much in common with their male teacher, and as a result of this perception, they generally preferred a female teacher. Datnow, Hubbard, and Woody (2001), however, suggest that when teachers share similar background experiences with their students, the impact transcends the common bond of gender and race. Datnow, et al. (2001) argue that it is teachers' ability to "understand the lives of

their students and their insight in knowing what and how to talk to the students" that has the greatest influence on students. Furthermore, in their study of single-gender academies, the researchers found that gender match between students and teachers was not a sufficient explanation of teacher effectiveness. Overall, Datnow and colleagues found that regardless of gender, students and teachers in single-sex classrooms engaged in more meaningful conversations, and that more of these dialogs took place with female teachers in all female classes.

The research of Datnow, Hubbard, and Woody (2001) illuminate the findings of this study. The female teacher in the single-gender classroom shared a common bond with her students in terms of life experiences. She is married to a Latino and had a child at a young age. She has great empathy for her students and advocates for them in every way. The male coed classroom teacher, on the other hand, has little in common with his female students. He is better able to relate to male students and often sides with his male students when gender differences arise in class, which further alienates the female students. It is not surprising that, in this study, female students in single-gender special education classrooms experience a greater degree of positive relationship with the teacher and their peers. This positive finding, however, cannot be attributed solely to the gender of the teacher, but to a range of teacher characteristics.

Academic Attitudes

In this study, academic attitudes were evidenced in school attendance and grade point average of students in single-gender and coed classrooms. Teacher records and student interviews indicated that students attending the single-gender classroom had markedly higher attendance rates and grade point averages than their coed class

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counterparts. Truancy and academic failure is a chronic problem for girls attending the coed SDC. This issue was the initial reason for the start up of the single single-gender program on the research site. As the program administrator explained:

> Program Administrator: It was my brainchild about five years ago. Knowing that the girls in the special day class... did not do really well, and then observing different special day class teachers over the years in my role as a department head, (I saw that) many times they had the girls with the instructional aide, and the teacher was working with the boys that were a little more active.There were a lot of put-downs in the classes, and the girls had real serious attendance problems. Many of the girls, especially Hispanic girls, would have a pretty low self-image and these guys wouldn't help at all with their self-image. In the special day classes, girls weren't getting the type of attention that they needed, and I think the boys were doing better than the girls were. Three years ago we had enough girls to where we could have an all-girls class, and so I talked to my administration here because the girls seemed to do much better if they have their own curriculum.... We actually went out and recruited a strong female teacher role-model for these young women, and that's how the all young women's class started. The second year we did some reviews of attendance of the girls from the previous year, when they were in a of combination class of boys and girls, and we found out that just their attendance alone had increased dramatically, and so we were able to present that to the school district to say that this is a program that really functions very, very well.

Increased academic achievement is not a new phenomena for girls attending single-gender schools, particularly for ethnically diverse female students in urban schools. Riordan (1994) conducted research examining the outcomes of ethnic group differences, in the context of single-gender settings compared to coeducational schools. The study yielded statistically significant results for Latina and African-American girls. Latina and African-American girls attending single-gender schools scored higher on measures of leadership and academic achievement than their counterparts in coeducational schools (Riordan, 1994).

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The goal of the single-gender program on the research site was to address the specific problems of girls in the special education program. The positive effects on school attendance and academic achievement were documented and the program has continued to yield successful results for the female students in single-gender classrooms. Unfortunately, the girls in the coed classrooms continue to suffer from low attendance and poor academic performance.

Distractions

Distraction emerged as a major theme throughout this research. Students in single-gender and coed classes commented repeatedly on the increased distractions they experienced in the presence of boys. This distraction was portrayed as unwanted and disliked by girls. They described being harassed and picked on by boys when attempting to focus on schoolwork. The following excerpt highlights this point:

> Researcher: How is a single-gender special education classroom different from a coed class?
>
> Latina SGSDC Student: You can talk about more personal stuff, and you don't have to worry about guys teasing you. You are more free… I used to be scared to read in front of guys, now I am not afraid.
>
> African American SGSDC Student: It's just that you have more privacy, and you actually can get some work done, without the guys over here harassing you, trying to get your attention. You're actually concentrating now that it's all females.
>
> Latina SGSDC Student: Some girls don't like to be with guys (in class) because they'll be putting them down. Girls don't like to be with guys in a class because they know they (the boys) are gonna tell their friends, "This girl is dumb, she doesn't know how to spell"…

Girls in the single-gender class appreciated the respite from males and preferred class without them. Girls in the coed class described the distractions from male peers as

menacing and a source of frustration. Little was done on the part of the teacher to prevent these behaviors. Datnow, Hubbard, and Woody (2001) discuss the problem of male harassment of girls on an institutional level. They report that the female students in their study felt that teachers did little to stop the harassment, except to tell the girls to ignore the boys' behavior. In their study, girls in the single-gender academies reported a freedom from the distraction of the opposite sex, thereby allowing an opportunity for greater academic focus.

Streitmatter (1999) found that girls unanimously agreed that without the distractions of boys, their learning was enhanced and the overall experience of the single-gender environment led to greater academic benefit. Furthermore, without the presence of boys, relationships between girls were strengthened and they felt more empowered in school.

Perceptions of the Classroom Environment

The students in the single-gender class remarked with consistency on the comfort level they experienced in their classroom, as evidenced in the following excerpt:

> Researcher: What are some of the benefits of attending an all girl's class?
>
> Latina SGSDC Student: It's comfortable to be in here. You have friends and people care about you.
>
> Researcher: How do you think the other girls feel about being in here?
>
> African American SGSDC Student: They feel comfortable…
>
> Latina SGSDC Student: You just feel good being in this class… Like if you want talk or get help, you can.

This finding is not surprising given the dynamics that take place between male and female students in coed special day classrooms. Coed classroom students felt very

guarded in class for various reasons, including the need to defend themselves against the boys, and the lack of support and attentiveness to their needs from the male teacher. In the 1992 report by the American Association of University Women, *How Schools Shortchange Girls*, researchers reported that male students receive more positive and negative attention than females from teachers in the classroom. This atmosphere places girls at risk for negligence, underachievement, and ultimately dropping out (AAUW, 1992). These findings are clearly reflected in the experiences of the coed SDC girls in this present study.

Both groups of students in single-gender and coed classrooms shared similar perceptions of the experience of being a special education student. The special education classroom was viewed as a place to get needed time and support to do schoolwork that they were unable to keep up with in mainstreamed classes. They voiced concerns about the misunderstandings non-special education peers had of their special education placements. While appreciative of the opportunities afforded them in special education classes, such as modified instruction and adaptations to the curriculum, they were frustrated and at times, ashamed at being viewed as "retarded" or "dumb." This is an unexamined issue for students in single-gender special education settings and merits further inquiry.

Discussion of the Findings: Gender Identity

This research assumes that gender identity is socially constructed and shaped by peers, teacher relationships, the media, and parental influences. Gender is a complex issue for female students in single-gender and coed special education classes. Disability further complicates gender identity for these students. Not only do girls experience put downs

from male peers for their gender, but male students in special education also make derogatory comments about the girls' disabilities. The coed special day students describe their experiences with male classmates in the following dialog:

> African American Coed SDC Student: ...if we try to say something, they (the boys) are like, "Shut up, it's not funny." It's like they just cover you up, like you're gone. They talk about like how fine girls are. The girls in this class don't talk a lot, 'cause we mostly do work, but the guys... they stand up, they walk around, they want to go to the bathroom.
>
> Latina Coed SDC Student: I have a boyfriend and (male student) says, "So when are we gonna go play around?" I say, "I have a boyfriend." He's like, "Did you give it to him already?"

Later a student discussed the namecalling that occurs in class:

> African American Coed SDC Student: I mean obviously they (the boys) are dumb themselves for even trying to tell me I'm retarded or dumb.... like (boys) sometimes say "Yeah you're retarded; that's why you're in this class." I'm like, excuse me, speak for yourself, I am not retarded, you might be, but I am not.

Teachers and parents seem to encourage girls to set high goals and to believe in themselves. Double standards, however, such as expecting girls to fulfill traditional roles at home and the reinforcement of gender stereotypes at school, create confusion and frustration for girls.

> African American Coed SDC Student: I used to play football, now they (my family) don't even want me to play, because I'm a girl and all that stuff. Everybody says, "Why are you doing this, you're a girl, act like a girl."
>
> Latina Coed SDC Student: Yeah, that's true. especially I have a sister, my older sister, and because sometimes I don't like to wear shorts or skirts, she's like,"Oh wear this" or "Damn, you look stupid with that." (I think) you should dress how you feel, you act how you feel comfortable, and you talk how you feel comfortable and you should just do what you like to do. She's just like "Oh no, don't do this." My mom, especially my mom, she's like, "Don't sit like that," and "don't eat like that."

Another student describes an interaction with a female teacher:

> African American Coed SDC Student: Ms. N (female teacher) said, "Oh that's not ladylike." I'm like, "Excuse me, but I could care less if that's ladylike or not, I'm sick. You wanna to pay for my cold medicine? You're gonna pay for my doctor bill? No, you're not. Face it, you could care less really."

These findings, in relationship to gender, are supported by Datnow, Hubbard, and Woody (2001) in their observations of the practice of gender equity in the context of the single-gender programs. The researchers observed that contrasting dynamics took place in the single-gender academies. While teachers expressed viewpoints and engaged in activities that promoted gender equity, their actions and interactions, often times, reinforced stereotypical roles for girls.

Datnow and colleagues (2001) suggest that relevant training in critical areas such as gender bias and harassment should be provided to teachers and administrators of such programs. In this study, no opportunities for such training were provided for teachers or administrators of single-gender classes. As the program administrator stated:

> No, we have not had any specific training. Other than the fact that (one female teacher) has gone to several workshops that were geared toward careers of professional women.... they did not deal with single-gender educational equity... those (types of workshops) are very few.

Discussion of the Findings: Benefits for Latina Students:

Latina students attending single-gender special education classrooms benefited in three areas; school attendance, academic achievement, and teacher/family support. Latina students consistently leave school prior to graduation at a higher rate than any other ethnic group (Ginorio & Huston, 2001). The students in the present study had a strong awareness of this problem evidenced in the following excerpt:

> Latina SGC Student: For us Latinas, when we're having problems, we just drop out of school.

Latina SGC Student: Some people say, "I won't drop out", but they still do.

For Latina students attending single-gender special education classes, improvement was observed in school attendance and academic achievement. In some cases, dramatic improvement was observed. These findings were evidenced by student and teacher reports, and teacher records.

Ginorio and Huston (2001) associate high achievement in school of Latina students with a high degree of personal connections with teachers. A report from the San Diego City Schools on high-achieving and low-achieving Latina students connected "high personalism, (defined as) warmth, expression of personal interest, and connectedness with others" as directly related to the success of Latina students in school (San Diego City Schools, 1989). In this present study, Latina students in single-gender special education classes clearly benefited academically from the strong and personal relationship they shared with their teacher as articulated in the following excerpt:

> Latina SGC Student: Ms. V is always pushing you … and asks you, "Why aren't you in school?" She's like our mother, keeping us on track.

The role of parents in the school success of Latina students is multi-faceted and at times, misunderstood. In general, Latino parents place high value on their children's education and strongly support achievement in school (Huston, Ginorio, Frevert, & Bierman, 1996). As one Latina student in this study articulates, "They want me to go to college. My parents are supporting me 100%, they're right there with me." This sentiment was expressed in other Latina student interviews.

Latino parents have high expectations for their children to commit to family; this can sometimes be interpreted as a lack of commitment to education. To the contrary,

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Latino parents view academic achievement of their children as a vehicle to a "better life for the child and the entire family, especially in the context where the American Dream is a powerful incentive for immigration and heavily promoted in schools and popular culture" (Ginorio & Huston, 2001; p. 22).

The role of teacher and parental support cannot be underestimated for Latina students, particularly Latinas in special education. The findings of this study suggest that single-gender special education classrooms provide distinct benefits for Latina students in terms of overall school success.

Conclusions:

1. In this study, female students attending single-gender special day classrooms have greater rates of classroom participation, schoolwork productivity, and interaction with the classroom teacher than students attending coed special education classrooms.
2. In this study, attendance rates and academic achievement are higher for female students in the single-gender special education class than their counterparts in the coed special education classroom.
3. In this study, Latina students in the single-gender special education classroom are advantaged in the areas of school attendance, academic achievement, and support from teachers and parents compared to their counterparts in the coed special education class.
4. The role of the teacher in the educational process of Latina students in special education appears to be vital for academic achievement and success in school.

5. School administrators and teachers of special education programs must have understanding and knowledge of the values and expectations that parents of Latina students in special education have for their children.
6. In this study, distraction from schoolwork and harassment in the form of teasing and put downs from male students is the most frequently reported problem for female students in the coed special education classroom.
7. Special education classrooms, single-gender and coeducational, may provide vital support for female students in the areas of instructional support and curricular adaptation, despite the misconceptions of peers about the function of special education.
8. Gender and disability are complex issues for girls in coed and single-gender special education classes that should be addressed by teachers and administrators of special education programs as well as researchers in the field.
9. Single-gender special education teachers and administrators need relevant training in the areas of gender bias, harassment, and gender equity.

Practical Implications of the Findings:

The small sample size and different genders and classroom teaching styles of the teachers in this study are clear limitations that require replication. A closer look at the complexities of gender and background experiences of educators is suggested by this study. Datnow, Hubbard, and Woody (2001) point out that while students in their study agreed that it was important to have a teacher who was the same sex, teacher background played a vital role in the success of student teacher relationships. An important recommendation from this study would be for administrators to carefully consider

background experiences of teachers, in conjunction with gender and ethnicity, when making decisions for the staffing of single-gender special education classrooms.

In addition to gender and background of teachers, this study suggests that classroom style of individual teachers in coed and single-gender special education classes merits further examination. In this study, students in the single-gender environment clearly benefited from the relaxed, collaborative atmosphere. Discussion was encouraged and rules about classroom behavior, such as eating in class and handraising during discussions, were laid aside. The classroom style of the male coed classroom teacher was more structured and laden with rules, such as handraising during class discussions and staying in one's seat. Many of these rules were for the benefit of the teacher to control boys' behavior and were detrimental to the female students in class. This study supports the findings of Streitmatter (1999) that provide qualitative insights into the environmental factors that contribute to success of girls in single-gender classes. Female students in special education classes benefit academically from an informal, cooperative environment. Additionally, the implementation of research-based best practices for girls in single-gender and coed settings are strongly supported by this study.

To enhance understanding of gender equity as it relates to special education, this study suggests inservice preparation for both single-gender special education teachers and program administrators could include a focus on issues such as gender bias, harassment, and gender equitable educational practices. Datnow, Hubbard, and Woody (2001) concur with this recommendation and further state that single-gender public school programs need to be driven by a "strong theory of gender equitable education."

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The present study raises the question, "What is the impact of single-gender special education classrooms on Latina students considered to be at risk for dropping out of school?" Research supports the contention that Latina students need a high degree of support and personal connection with teachers, in addition to positive reinforcement, to achieve optimal school success (Ginorio & Huston, 2001; San Diego City Schools, 1989). Single-gender programs provide such environments for students who attend them (Datnow, Hubbard, & Woody, 2001; Streitmatter, 1999). Additionally, the role of parents plays an important part in the school achievement and attendance of Latina students (Ginorio & Huston, 2001). This study suggests that teachers and program administrators of Latina students in special education pay careful attention to the personal relationships they cultivate with their students and families. For Latina students, personal connections with teachers play a vital role in school success. Single-gender special education classes in this present study provided such opportunities for teachers.

Need for Future Research:

A more fundamental issue raised by this study is the legal debate surrounding single-gender public school programs. In the present study, the district was aware of the single-gender program, but the program administrator was advised to keep a low profile in regard to the intentional separation of sexes in special education classes. Title IX restrictions have forced many single-gender public school programs to become coed or shut down (Datnow, Hubbard, & Woody, 2001). Title IX regulations are restrictive and complex. In order for single-gender special education programs to succeed in the context of coeducational public school settings, careful examination of the Title IX regulations and policies must be explored. If legal and political guidelines are not established, single-

gender public school special education programs will become hidden experiments in danger of being forced to revert to a coed model if discovered. What is ironic in special education is that the high number of male students identified as disabled often leads to the establishment of single-gender classes. This is not intentional but instead a result of the low number of girls identified for special education services. This issue of over-identification of male students in special education is beyond the scope of this research, but merits further examination.

Issues related to gender and teacher beliefs about gender in the classroom are another area for suggested future research. Specifically, interactions between students and classroom teachers as they relate to gender, teacher beliefs about girls in special education, and special education teachers' management of the classroom in single-gender and coed environments are all topics that merit further inquiry. Additionally, this present study raises the question: Across groups of female students in high school (general education or special education), do the school attitudes of girls in special education differ from their general education counterparts? Finally, parental roles, expectations, and practices of special educators in relationship to parents of students with disabilities is another important line of inquiry suggested by this research.

The findings presented here argue for careful examination of the specific needs of female students in special education programs, particularly Latina students. The results of this study, together with other studies of single-gender public school programs for at-risk students (Datnow, Hubbard, & Woody, 2001; Streitmatter, 1999) suggest that female students may benefit greatly from participation in single-gender special education programs. The present study supports the notion that single-gender special education

placements appear to be a viable option for female students, particularly Latinas, to meet the complex and diverse needs of female students in special education. In light of the fact that female students in special education are largely understudied, it is critical that future research provides further examination along this line of inquiry on the status and condition of female students identified with mild to moderate learning disabilities.

The issue of gender in special education has been long neglected in the special education literature. Female students from ethnically diverse backgrounds, particularly Latinas, in special education are at serious risk for school failure and ultimately dropping out. It is timely to continue scholarly efforts in this understudied area.

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